UNITED STATES BANKRUPTCY COURT

SOUTHERN DISTRICT OF NEW YORK

Case No. 08-13555-scc

- x

In the Matter of:

LEHMAN BROTHERS HOLDINGS INC., Chapter 11

Debtors.

- x

U.S. Bankruptcy Court

One Bowling Green

New York, NY 10004

November 5, 2014

9:33 AM

B E F O R E :

HON SHELLEY C. CHAPMAN

U.S. BANKRUPTCY JUDGE

Evidentiary Hearing Re: Doc# 19888 Debtors' One Hundred Ninety-First Omnibus Objection to Claims (Valued Derivative Claims) filed by Robert J. Lemons on behalf of Lehman Brothers Holdings Inc..

Transcribed by: Sonya Ledanski Hyde

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P R O C E E D I N G S

THE COURT: Good morning, everyone. Could I ask two strong persons to crack the window if it's not already cracked? Is it cracked?

MAN: I think it's already cracked.

THE COURT: Okay. It's okay.

MAN: Do you want this window?

THE COURT: No, no, that would be beyond my jurisdiction to get that window. [LAUGHTER] So we'll make do. I'm sure it'll cool off in here. Okay, good morning, everyone. Any housekeeping matters you'd like to address before we get started?

MAN: No, you're Honor.

WOMAN: Oh, actually, I'm sorry, there is one. We had to send a letter a couple of nights ago with some additional exhibits for the Court that we failed to provide to you. Just give us...

THE COURT: Sure. Good morning, Mr. Konheim, how are you?

MR. KONHEIM: Very good.

THE COURT: You're still under oath, sir. Please have a seat.

MR. LAWRENCE: Good morning, Mr. Konheim.

MR. KONHEIM: Good morning.

MR. LAWRENCE: Let me start out with something

easy and just finish going through your history at Lehman. You started at the middle desk in muni derivatives in 1997, correct?

MR. KONHEIM: Sorry. I started in total return swaps, different middle office group in '97. In 2000 I started in muni deriv middle office.

MR. LAWRENCE: And when did you become supervisor?

MR. KONHEIM: In 2000.

MR. LAWRENCE: And at some point you were promoted to manager?

MR. KONHEIM: Yes. And either 2003 or 2004.

MR. LAWRENCE: And that was manager of the middle desk for muni derivatives, correct?

MR. KONHEIM: Middle office.

MR. LAWRENCE: Middle office, sorry. And how long were you in that managerial role?

MR. KONHEIM: I think until 2006 at which time I assumed responsibilities for interest rate swaps.

WOMAN: I'm sorry, for interest rate swaps?

MR. KONHEIM: Interest rate swaps.

MR. LAWRENCE: And what was your title at that point?

MR. KONHEIM: Vice president.

MR. LAWRENCE: And after that, how did your role change, if at all?

MR. KONHEIM: My role remained more or less the same. Certain groups I managed, additional groups -- certain groups that I did manage over time, I no longer managed. But the main portion of my role was middle office manager.

MR. LAWRENCE: And were muni derivatives still within your purview starting in 2006?

MR. KONHEIM: Yes. I had a supervisor or maybe even you'd call him a manager managing the daily work and I supervised the manager. Or supervisor, whatever.

MR. LAWRENCE: And that role basically continued to the Lehman bankruptcy, is that fair?

MR. KONHEIM: Prior to Lehman bankruptcy I no longer had direct managerial role of the muni derivative middle office.

MR. LAWRENCE: And about how much prior to bankruptcy did that change occur?

MR. KONHEIM: Maybe April 2008.

MR. LAWRENCE: Okay. And as we indicated, you are still a Lehman employee or a Lehman entity employee today, correct?

MR. KONHEIM: Correct.

MR. LAWRENCE: Now, one of the things that we got I guess maybe some confusion about is what you're testifying about today. So when I asked you questions, if you were personally involved with something, that's great; if you are

able to answer it based on your experience at Lehman, that's great, but if you're only able to answer based non your 30B6 preparation you need to tell us and we won't go there. Is that -- understand that?

MR. KONHEIM: Fair enough.

MR. LAWRENCE: Okay. Now, back to 2002, okay? And in 2002 in your role you had a general understanding of how Lehman priced its municipal derivative transactions, correct?

MR. KONHEIM: I had a general understanding.

MR. LAWRENCE: And that would include trades such as a tobacco RFA, correct?

MR. KONHEIM: That would include trades such as the tobacco RFA.

MR. LAWRENCE: And Lehman considered a tobacco RFA trade as pretty much a standard transaction, correct?

MR. KONHEIM: From my perspective, I would consider it a standard transaction.

MR. LAWRENCE: And is it true that generally in 2002 that Lehman tried to assess credit risk as part of its pricing of proposed transactions like an RFA?

MR. KONHEIM: In my general knowledge all trades that we enter into have credit risk. I can't tell you much more than that.

MR. LAWRENCE: So the trading desk would take into

account a credit risk but how much, how they determined that you can't tell us, correct?

MR. KONHEIM: No idea.

MR. LAWRENCE: But you understand the trading desk would take into account credit risk on their transactions?

MR. KONHEIM: I guess you could say that it depended upon the structure of the trade. If a transaction didn't have any credit risk then the trader wouldn't take it into account. Generally a trade with a counterparty would have credit risk.

MR. LAWRENCE: Now, there are different kinds of risk in addition to credit risk that Lehman took into account. Something called market risk, correct?

MR. KONHEIM: Correct.

MR. LAWRENCE: Could you explain to use what market risk was?

MR. KONHEIM: An example of market risk is interest rates. Today rates could be at -- or today rates are near half a percent, let's say. I don't even know what they are. A quarter percent, half a percent, one percent. They could change to 6 percent. The fact that that change in rates over time can occur is a risk the trader has to manage.

MR. LAWRENCE: So, with respect to the Washington TSA the market risk was that interest rates would move

differently than what were utilized for the CP curve that priced the transaction? Is that fair?

MR. TAMBE: Objection. Lack of foundation, your Honor.

THE COURT: Well, and it's leading. So let's ask it in a more open-ended way with foundation.

MR. LAWRENCE: What was the interest rate risk or the market risk with respect to the Washington TSA trade?

MR. TAMBE: Same objection as to lack of foundation.

THE COURT: To the knowledge of the witness.

MR. LAWRENCE: And I will remind your Honor, we looked at the document yesterday that went to him that he's described.

THE COURT: Yes, Okay.

MR. KONHEIM: So...

MR. LAWRENCE: And, again, I'm not talking about the specific degree of risk or the calculation, I'm just talking about generally what was the market risk involved with the tobacco RFA trade, to your knowledge?

MR. KONHEIM: The risk to the trader is that rates will go down and he has to hedge that fact. That is the risk that he has.

MR. LAWRENCE: So the way that a trader hedges market rate risk is to enter into hedge transactions in

conjunction with the trade, correct?

MR. TAMBE: Objection. Lack of foundation, leading.

MR. LAWRENCE: To your knowledge?

MR. KONHEIM: To my knowledge, they would enter into hedge transactions.

MR. LAWRENCE: Okay, I'm showing you TSA Exhibit B and I'm going to ask you a couple of questions about the stock. First of all, who is Anatoly Zelikov?

MR. KONHEIM: He was a municipal derivative trader.

MR. LAWRENCE: And is it your understanding he was a trader on the Washington TSA trade?

MR. KONHEIM: He was the trader that instructed us on the booking of the transaction.

MR. LAWRENCE: When you say instructed us, instructed?

MR. KONHEIM: Middle office.

MR. LAWRENCE: Yes.

MR. KONHEIM: On the booking of the transaction.

MR. LAWRENCE: And you'll see that he has -- there's certain handwriting that talks about the market. 37.208 million. Do you see that?

MR. KONHEIM: Sorry. Say that again.

MR. LAWRENCE: On the upper right there's

handwriting that says "Mark of 37.208 million"?
MR. KONHEIM: Yes.
MR. LAWRENCE: And do you recall yesterday when we were looking at the document, that's the same number that represents the cash flow that Lehman expected to earn, correct?
MR. KONHEIM: Correct.
MR. LAWRENCE: And Mr. Zelikov writes this email to muni derive access. Do you see that's one of the email entries?
MR. KONHEIM: Correct.
MR. LAWRENCE: Could you explain what that email address is?
MR. KONHEIM: It was a group email address that included at least -- I don't know everyone, but probably middle office and Product Control.
MR. LAWRENCE: It included you in middle office?
MR. KONHEIM: Yes, it included me as middle office.
MR. LAWRENCE: And he is writing "In addition to U. Zang" if I'm pronouncing that correctly. Zang, sorry. Who was that?
MR. KONHEIM: She worked in Product Control.
MR. LAWRENCE: Okay. And Courtney Jenkins?
MR. KONHEIM: He was in Transaction Management.

MR. LAWRENCE: And Patrick Verdi?
MR. KONHEIM: He was a credit officer.
MR. LAWRENCE: Okay. And then there are CCs to Greg Shalovsky. Who is that?
MR. KONHEIM: A trader.
MR. LAWRENCE: Okay. And James Lister?
MR. KONHEIM: A trader.
MR. LAWRENCE: Okay. And Mr. Zelikov is describing certain hedges here, is that right?
MR. KONHEIM: He's describing the booking requirements of the trade for middle office and notifying Product Control and Courtney in Credit. Courtney Jenkins and Patrick Verdi that they won this bid.
MR. LAWRENCE: But in terms of what your role is, you were to book based on the information -- in part based on this information?
MR. KONHEIM: In part based upon this information.
MR. LAWRENCE: So, one of the things that he says is -- sorry, that didn't really work well. Just leave it like that. "In addition, to mitigate the credit risk involved in the tobacco deals"...
MR. KONHEIM: Sorry. Can you...?
MR. LAWRENCE: Yeah, I'm sorry. Too aggressive... "In addition, to mitigate the credit risk involved in the tobacco deals as well as the mandatory cleanup call, we will

book a credit mitigation option saved as a (indiscernible) in lens." Do you see that?

MR. KONHEIM: Yes.

MR. LAWRENCE: Okay. And then yesterday remember on the document we looked at there was a credit mitigation option of 4.522 million?

MR. KONHEIM: Mm hmm.

MR. LAWRENCE: Yes?

MR. KONHEIM: Yes.

MR. LAWRENCE: I'm sorry, you have to answer yes or no to my questions.

MR. KONHEIM: Yes.

MR. LAWRENCE: And so the reference there to mitigate the credit risk involved in the tobacco deals relates to that 4.522 million credit mitigation option, correct?

MR. TAMBE: Objection. Leading, your Honor.

MR. LAWRENCE: Does that relate to -- does the 4.522 credit mitigation option relate to the credit risk involved in the tobacco deals as described by Mr. Zelikov?

MR. KONHEIM: Per Mr. Zelikov, the credit mitigation booking involves two pieces: the mandatory cleanup call and it mitigates credit risk.

MR. LAWRENCE: And that's the 4.522 million?

MR. KONHEIM: That's the 4.522.

MR. LAWRENCE: Now in addition with respect to market risk, Mr. Zelikov entered into three hedge transactions. Is that fair?

MR. KONHEIM: It is fair to say that he entered into at least three.

MR. LAWRENCE: Okay. And could you describe -- I believe those are the "We receive 5.243, etc."?

MR. KONHEIM: Correct.

MR. LAWRENCE: Could you describe each hedge to the Court, please?

MR. KONHEIM: The first line, "We receive 5.243 on 30 and 15 years." That's saying he did a trade with 30 million in notional where his desk is receiving 5.243, the core desk, the general LIBOR interest rate desk is paying the 5.243 to him for 15 years. So it's standard trade. It would begin in two days and go for 15 years. The next line is "We receive 5.5475 on 50 million 30 years." Similar transaction only for 30 years at a different rate. The third transaction says , "We pay 5.23 on 5 million 15 years." So this time we're paying the core desk on 5 million, notional for 15 years.

MR. LAWRENCE: These are all long-term hedges, correct?

MR. KONHEIM: 30 years, if that's long-term, yes.

MR. LAWRENCE: And 15 years.

MR. KONHEIM: And 15.
MR. LAWRENCE: You testified yesterday about the model that Lehman used to calculate its cash flow, correct?
MR. KONHEIM: Yes.
MR. LAWRENCE: And does that model produce a zero rate number?
MR. KONHEIM: I'm not sure which one you're referring to. The one which we booked the trade or the one where the trader uses an Excel sheet?
MR. LAWRENCE: The one we were talking about yesterday is where the trader uses an Excel sheet.
MR. KONHEIM: I believe that it generates the zero rate.
MR. LAWRENCE: And could you explain, when you say zero rate, what that means to the...?
MR. KONHEIM: Sorry. It will tell him what the break-even rate of the trade is.
MR. LAWRENCE: So does that take into account cost that Lehman would incur in doing the transaction?
MR. KONHEIM: No, it would just be -- this is exactly where I do a trade and the amount of the rate that I pay versus the rate over time that I'm going to receive, the value will be approximately zero.
MR. LAWRENCE: And if you're going back to this exhibit you'll see that Mr. Zelikov references that there'll

be a broker fee payable to PFM in approximately $168,000. Is that a type of cost that is not included in the zero rate, correct?

MR. KONHEIM: That would be a cost not included in what we're calling the zero rate.

MR. LAWRENCE: And would that cost be --

MR. KONHEIM: Or the break-even rate is what we should term it.

MR. LAWRENCE: Would that cost be accounted for by the trader, in your understanding, in pricing the response to the bid?

MR. TAMBE: Objection. Calls for speculation, lack of foundation.

MR. LAWRENCE: Again, if you have understanding generally based on Lehman's practice and procedure and your knowledge as a middle officer -- middle office officer?

MR. KONHEIM: I assume the trader would include it unless he wants to lose money.

THE COURT: Mr. Konheim, we don't want you to assume.

MR. KONHEIM: Yeah, okay.

THE COURT: You either have to say if you know, and if you don't know you have to just tell us that you don't know.

MR. LAWRENCE: And I'm just asking the general

practices at Lehman as you understood them in 2002.

MR. TAMBE: I have an objection to foundation. He's not a trader. He's told what role he played.

THE COURT: We're trying to elicit an answer from your personal knowledge. If you can do that, great; if not, you don't have to assume.

MR. KONHEIM: No, I don't know.

MR. LAWRENCE: Are there costs associated with placing hedges?

MR. KONHEIM: There's a cost associated with placing a hedge.

MR. LAWRENCE: In your experience at Lehman, how were those costs taken into account in booking a trade?

MR. KONHEIM: When two desks trade asking when the -- two desks are trading between themselves, the market-making desk will charge the desk requesting a bid or offer the charge for entering into the trade. In this case, the core desk would charge the municipal derivative middle -- municipal derivative desk a fee to enter into the hedge transactions.

MR. LAWRENCE: And how would your office incorporate that fee into the booking of the transaction?

MR. KONHEIM: We don't. It gets included in the rate of the trade. There's no fee passed. They quote it in the rate of the trade.

MR. LAWRENCE: So when you say it gets quote in the rate of the trade, is it reflected in the guaranteed rate of $30 million?

MR. KONHEIM: No.

MR. LAWRENCE: How is it reflected?

MR. KONHEIM: It's in the trade that the core desk did with the municipal derivative desk.

MR. LAWRENCE: When you mark this Washington TSA trade in the middle office -- you book it, I'm sorry -- when you book it, right -- you book this trade, right?

MR. KONHEIM: Correct.

MR. LAWRENCE: How did the cost associated with the trade get booked, if at all?

MR. KONHEIM: The cost associated with which aspect -- which trade?

MR. LAWRENCE: The Washington TSA trade.

MR. KONHEIM: The Washington TSA trade was booked at the guaranteed rate of 4.4 something. 484, maybe 4.48. I forgot the exact number. That's the value -- against the CP curve. These two transactions, 413853 (indiscernible), 13879L. Any other cost is their own cost.

MR. LAWRENCE: So, just so we understand, the difference between the rate that generated 37.2 million and the rate that generated 30.6 million includes any costs -- for your booking purposes, that encompasses cost of the

trade, the credit mitigation option, any components of profit, all that is within that number?

MR. KONHEIM: That is only the value of the Washington Tobacco Reserve Fund agreement. Any other costs are booked separately.

MR. LAWRENCE: Well, you don't book this at $37 million, correct? You don't book this at the rate that generates $37 million, correct?

MR. KONHEIM: The model projected that we would earn 37.2 million over 30 years. And we pay 30.641 at the guaranteed rate.

MR. LAWRENCE: And the difference between 37.3 and 36 represents the net booking of the Washington trade, correct?

MR. KONHEIM: Of the Washington trade and only the Washington trade.

MR. LAWRENCE: And the difference between 37.2 and 30.6 would encompass elements such as credit risk, profit and loss, and market risks in the trade. Is that fair?

MR. KONHEIM: The trader determines -- those are aspects of the trade that can be included. In that, that's the value of the trade.

MR. LAWRENCE: Do you have your deposition still?

MR. KONHEIM: No, I gave it back to you yesterday.

MR. LAWRENCE: Could you look to Page 36 of your

deposition?

MR. TAMBE: I'm going to have an objection, your Honor, to any attempts to impeach this witness with this (indiscernible) testimony. If he has a 36 Q&A he can offer it into evidence but he can't impeach this witness with that.

THE COURT: Okay, I thought we went through this yesterday where we were going -- the witness is testifying today in his personal capacity to the extent that there's a Q&A in the deposition that related to something that's in his personal capacity, it's fair game. Right?

MR. LAWRENCE: Right. This is his email, yeah.

THE COURT: Okay.

MR. LAWRENCE: Yes, yes, yes.

THE COURT: So, Mr. Tambe, just looking at the knitting of your brow, is that not the way we have it understood from yesterday? The witness testified as a 30B6 witness. Presumably during his deposition he testified both as to matters within his personal knowledge and matters as to which he had bene prepared, so to speak, for the 30B6. So today since he's here in a personal capacity only, the scope of impeachment, if you will, is limited to anything in the deposition that relates to his personal knowledge. Yes?

MR. TAMBE: That's fair but I think counsel has cited, I believe, page 36.

THE COURT: Okay, so let's go to that.

MR. LAWRENCE: Let's start on Page 35 so you get the preliminary question.

THE COURT: Okay.

MR. LAWRENCE: On Line 16. We're asking about this TSA exhibit here, which is Exhibit C, which was Exhibit 23 in the deposition. And I asked and he answered just like he just did. So if we wanted to find a like number for the Washington trade we would net 37.2, 36 and 45 and what would that number represent? The net of booking the Washington trade. That's the answer we got today. And so going on, trying to understand what that means, I asked him "That number would encompass the elements..." Are you following along? "That number would encompass the elements you talked about before. That is, credit risk, the P&L and the market risk on the trade. Is that fair?"

MR. TAMBE: And if you look down, your Honor, what he's talking about is what he assumes a trader would've been able to do. The earlier discussion was about how traders did things. That's not his personal knowledge, that's things he learned for purposes of 30B6.

THE COURT: Hold on. Okay, well, I'm reading starting on 35 and I'm reading through 37. I'm not seeing any inconsistency with anything the witness said today. So I'm not following you, Mr. Lawrence.

MR. LAWRENCE: All I'm trying to establish, which I think he did not answer today is that the net between 37.2 and 36 encompasses credit risk, profit and loss, and market risk. If you think he's testified to that, that's fine. I thought he said he didn't know, and so I was trying to make the point that he in his deposition, he represented those three -- he said it would represent those three components of the trade. So if you heard some different testimony, we don't have to go there.

THE COURT: What I heard the witness say in the last couple of minutes in my mind is entirely consistent with this. It was said in a slightly different way but to me it's consistent.

MR. LAWRENCE: Then I can move on.

THE COURT: Okay. So, I have one more question generally about the Excel model. You indicated that this transaction was modeled in a CP spread curve, correct?

MR. KONHEIM: That is my understanding. There's a CP spread serve (indiscernible).

MR. LAWRENCE: The model and the CP spread serve was based on a market that shows the CP spread to treasuries on a given date. Is that generally right?

MR. TAMBE: Objection. Lack of foundation.

MR. LAWRENCE: If you know.

MR. KONHEIM: I don't know.

MR. LAWRENCE: Okay. We talked a minute ago about Courtney Jenkins and you described what his position was. Based on your understanding, was part of his responsibilities to negotiate the terms of trade such as an RFA -- such as the Washington tobacco RFA?

MR. KONHEIM: That would've been some of his responsibilities, is my understanding.

MR. LAWRENCE: Now, I'm going to talk briefly about a transaction which has been referred to as Briarwood. Are you familiar generally with that transaction as it relates to Washington TSA?

MR. KONHEIM: Yes.

MR. LAWRENCE: Okay. And, in fact, you had some involvement in working with the trader to help put together that transaction, correct?

MR. KONHEIM: Correct.

MR. LAWRENCE: And what was your -- who was the transaction with, between Lehman and which company?

MR. KONHEIM: Lehman entered into a transaction with SPV Briarwood. Somehow it is related to Sun America Life Insurance Company. Sun America Life Insurance Company.

MR. LAWRENCE: And when you say SPV, could you just tell us what that stands for?

MR. KONHEIM: Special Purpose Vehicle, though my classifying it as that doesn't mean that's what it really

was.

MR. LAWRENCE: And in general terms what was the structure of that transaction?

MR. KONHEIM: It enabled Lehman to purchase commercial paper to be used for our reserve fund agreements.

MR. LAWRENCE: So, Lehman got commercial paper from Sun America at a certain fixed rate, correct?

MR. KONHEIM: We contracted with Sun America to receive a fixed rate and we used that commercial paper to provide to tobacco RFAs and pay them their fixed rate.

MR. LAWRENCE: And the fixed rate Lehman was receiving from Briarwood was higher than the fixed rate they were paying to Washington?

MR. KONHEIM: I would say it was different.

MR. LAWRENCE: Are you saying that it's not higher than 4.484 percent?

MR. KONHEIM: The actual rate is higher but they were done at different times, so...

MR. LAWRENCE: So let's talk about just actual rates. The actual rate, just to be clear, of the CP that was provided by Sun America was at a higher rate than the CP that was provided -- than the guaranteed rate that was provided to Washington TSA?

MR. KONHEIM: Correct.

MR. LAWRENCE: And that enabled Lehman to hedge

its risks associated with the Washington TSA trade essentially. Is that fair?

MR. KONHEIM: I believe that's what it did.

MR. LAWRENCE: And when the Briarwood trade was booked, what happened to the credit mitigation option that had been booked for the Washington TSA trade?

MR. KONHEIM: The trader terminated the credit mitigation option on the date he entered into the Briarwood transaction.

MR. LAWRENCE: Thank you. I have nothing further.

THE COURT: All right, thank you.

MR. TAMBE: Can I just have a moment, your Honor?

THE COURT: Okay.

MR. TAMBE: We have no questions, your Honor. Thank you, Mr. Konheim.

THE COURT: Okay, Mr. Konheim, thank you very much. You're excused.

MR. KONHEIM: All right, thank you.

MR. LAWRENCE: We call Jeffrey Hasterok.

THE COURT: Hello, Mr. Hasterok. Would you raise your right hand, please? Do you solemnly swear or affirm that all of the testimony you are about to give before the court shall be the truth, the whole truth, and nothing but the truth?

MR. HASTEROK: I do, your Honor.

THE COURT: Thank you. Please have a seat and make yourself comfortable. If at any time you would like a break or you need anything, please let us know.

MR. HASTEROK: Thank you, your Honor.

MR. LAWRENCE: Let me get my technology set up again here. Good morning, Mr. Hasterok.

MR. HASTEROK: Good morning.

MR. LAWRENCE: You've been hired as an expert witness in this case, is that right?

MR. HASTEROK: That is correct.

MR. LAWRENCE: I want to start by going through some of your background that supports your expertise. Could you start by telling us your education?

MR. HASTEROK: I graduated with a bachelor's of science and finance from the University of Illinois in 1996.

MR. LAWRENCE: And then when did you get your first job with the finance industry?

MR. HASTEROK: Right after college in 1996. My first job was with a firm called Edward Jones, which is primarily a retail broker-dealer based in St. Louis. I worked there for 2-1/2, 3 years as a risk analyst.

MR. LAWRENCE: And could you then tell us what you did after that?

MR. HASTEROK: I worked on a national political campaign as a fundraising analyst. And after that in 2001 I

took a position at Morgan Stanley in their Municipal Division in the sales and trading side of the business. In 2003, so two years after -- I started as an analyst at Morgan Stanley in 2001. In 2003, I moved into the derivative business as a subset of the municipal sales and trading business. And I was at Morgan Stanley until 2012. I went from an analyst, then was promoted up to the level of executive director by the time I left in 2012.

After that I did some consulting, which included this engagement as an expert witness. My current position is -- I am a data and risk analyst for the Commodity Futures and Trading Commission in Washington, D.C. I do need to say for the record that anything I say today I am saying on behalf of myself. It's my own independent opinions. And anything I say is not the opinion of the CFTC, its staff or commissioners.

MR. LAWRENCE: So, let's go back to your experience as it would relate to the type of transactions that are (indiscernible) Washington TSA. Could you tell us about that?

MR. HASTEROK: Sure. I think the most relevant experience is my time at Morgan Stanley on the derivative desk, again, starting in 2003 all the way up to 2012. My role at the end of my tenor at Morgan Stanley for the last few years was that of what's called a derivative marketer.

That role is essentially someone whose job is to coordinate the execution of derivative transactions with, in my case, municipal and not-for-profit counterparties. For the most part the types of transactions we did were interest rates and credit-related derivatives and what's called structured reinvestment products. And those products include forward purchase agreements, which is an example of the RFA we're talking about today.

MR. LAWRENCE: Could you explain what a forward purchase agreement is for the Court?

MR. HASTEROK: Sure. There's a couple of different words you can use to say the same thing. But in my experience we would use forward purchase agreements, forward delivery agreement interchangeably. And all that meant was that you would agree to deliver a type of security to a client on a preset basis, monthly, quarterly, annually, whatever it happened to be, in exchange for some guaranteed yields. That could be a fixed rate, that could be a floating rate, it just depended on the transaction.

The reason for it was for municipalities and not-for profits was generally the reinvestment of tax-exempt bond proceeds. So it was a very narrow reinvestment outlet for them. The reinvestment of tax-exempt bond proceeds has some strict regulation around it and usually that business is competitively bid out to make sure that the yields that

they're learning are, quote-unquote, "market yields". So, again, it was in relation to munies reinvesting their bond proceeds in some type of structured reinvestment product that was customized for their needs.

MR. LAWRENCE: And about how many years of experience do you have dealing with forward purchase agreements?

MR. HASTEROK: Approximately, nine now.

MR. LAWRENCE: And about how many forward purchase agreements did you deal with over those nine years?

MR. HASTEROK: I would say many. I wish I had the exact number. Unfortunately, after you leave a firm like Morgan Stanley you don't get to take your trading records with you. That's part of the agreement. But I would probably say well north of one or 200 easily.

MR. LAWRENCE: And can you describe more specifically your particular involvement in FPAs at Morgan Stanley?

MR. HASTEROK: Sure. So, as I said before, most of these transactions were competitively bid out. So traditionally you would receive a bid specification document from an advisor. Usually the advisor is representing the municipality or the not-for profit. They would send out an RFP to the dealer community asking for comments and a bid at a certain prescribed date and time for a given structure.

So, we've seen an example of that in this scenario already. We've seen PFMs, bid specs that they sent out in, I believe, October of '02.

My role as a marketer would be to talk to the advisor community, talk to the muni community and try to get them to send us as many specs as possible because the more deals you saw, the more likelihood it is that you can make money and do trades. Once we saw a spec come in the door, you would coordinate that request for quote with internal folks at Morgan Stanley. So we would show it to the Credit Department, the Legal Department, the Transaction Management Department, the traders, and at Morgan Stanley what's called the CPM team or the Counterparty Management Team. So, your job as a marketer is to make sure everyone's seen it, you've gone through the right approval processes to make sure that you're allowed to bid on a certain trade and that you're ready to go at the bid time. And at that point all you're seeing at the bid time is the rate.

MR. LAWRENCE: And can you explain your experience specifically with tobacco reserve fund agreements?

MR. HASTEROK: Sure. Tobacco is a bit of a strange sector in the sense that at our firm, Morgan Stanley, it was viewed as a, quote-unquote, "muni product" and the reason why is, generally speaking, the issuers of the bonds were municipalities or agencies or instrumentalities of a muni.

So, the cash flows, however, are really more of what's called an asset-backed security. So it kind of lives in both worlds. Yes, it's a muni because the bond deal is a muni but the structure itself, the bond deal is much more similar to an asset-backed deal.

The tobacco FPA market was, generally speaking, dominated by a few dealers that had the knowledge and expertise to model the tobacco risk and the willingness to be exposed to that tobacco risk. Morgan Stanley was one of those dealers that was active in bidding on trades like Washington's reserve fund.

MR. LAWRENCE: What, based on your experience, were the particular risks associated with tobacco trades?

MR. HASTEROK: As was discussed yesterday, tobacco risk and the reserve funds that are related to it stem from what's called the Master Settlement Agreement that was signed in, I believe, the late nineties. It was an agreement between the States Attorneys General with the participating manufacturers to extract a revenue stream from the manufacturers in exchange for an agreement not to pursue additional legal claims against the manufacturers. So, this generated a stream of income related to domestic smoking which was allocated amongst the states according to a formula, mostly based on population -- larger states would get more than smaller states.

That income stream was then, in some cases, what's called securitized. And what that means is you'd borrow money against it. So you'd borrow money upfront against that future income stream. In Washington's case they did a $500 million plus bond deal against some but not all of their projected income streams from tobacco -- essentially, transferring the risk that the tobacco revenues would fall and plunge to the bondholders as opposed to the taxpayers of the State of Washington.

In relation to that, many tobacco deals had what's called a reserve fund or, in this case, a liquidity reserve account. But all that means is that you're setting aside money day one to protect the bondholders if there's a shortfall in the revenues that are dedicated to the bonds. So it provides a little bit of extra comfort for a bondholder that they know there's at least a year of interest and principal set aside just for them to make them whole.

In relation to that, many municipalities would then take that money and invest it in something. And, again, most of these bond deals were long-term deals, 20, 30-year bond deals, so the bonds are going to be outstanding for quite some time. So, in many cases you would try, if possible, to earn yields better than very, very short-term yields. So, at the time, there was a market for what we're

talking about today, this RFA, which is essentially an ability to get long-term yields from a muni's point of view -- to earn long-term yields but, however, still have the ability to get out of the contract with no cost if they needed it for a debt service deficiency. That was the unique feature of the contract.

MR. LAWRENCE: What --

THE COURT: Hold on. Okay. So the credit risk to the counterparty to the proposed respective RFA is the potential diminution in value of the notional amount if there's a shortfall in what's needed to pay a coupon on the bonds?

MR. HASTEROK: Your Honor, generally, the risk from a dealer's point of view --

THE COURT: Yes.

MR. HASTEROK: -- our worry about --

THE COURT: That's what the question was.

MR. HASTEROK: Sure. We're worried about credit risk as a dealer...

THE COURT: Yes.

MR. HASTEROK: ...generally in a higher rate environment. Because at that point we're paying a fixed yield -- let's call it 4-1/2 percent in this case, rates skyrocket, they go up to 10-20 percent. We're now paying a rate that's far lower than what the market will bear. So

that is an asset from our point of view. That's worth something to the dealer. If at that point the tobacco revenues fall and the muni has to pull money out of the agreement, they get to pull it out at par. They don't have to pay us basically the mark to market on the transaction or what's called the termination amount in the contract.

So you're worried that it's going to draw from the contract at exactly the wrong moment and that's why you have to reserve some amount of credit reserve in case that happens.

MR. LAWRENCE: Did that answer your question? You look slightly confused. I think what the Court is trying to understand is -- you describe the draw where they have to draw out the reserve fund...

MR. HASTEROK: Right.

MR. LAWRENCE: ...and it's not available to invest. Could you explain how that affects the dealer?

MR. HASTEROK: Sure. Let me try to explain it in terms of treasuries. Sometimes that is easier to understand. Let's imagine I personally bought a 10-year treasury, okay?

THE COURT: Can I try to explain it back to you?

MR. HASTEROK: Sure. Sure, your Honor.

THE COURT: There's $45 million that you as the dealer have from Washington TSA. You are paying them 4.48 or whatever it was. Rates go super high, 10 percent, right? So

you as the dealer, you have that money and you're able to be out buying securities that can pay you that spread, right?

MR. HASTEROK: Correct, your Honor.

THE COURT: Okay. So then Washington TSA does a redemption or there's a shortfall or for whatever reason they take back their money. So is the risk that you don't have that sum of money in order to go out and earn the higher yield, the spread between the 4.48 that you had to pay Washington TSA while you're in the RFA and in an interest rate environment where you're using that money in order to generate a spread that you get to keep? Is that it?

MR. HASTEROK: Yes, your Honor, and if I may add to that?

THE COURT: Okay.

MR. HASTEROK: That's absolutely true that now the muni is not giving you the money to purchase a security so you can earn the yields off of those securities. So that's one part of the loss. And the other part of the loss is, generally speaking, at the time you did the original transaction you almost certainly went into the interest rate swap market as a dealer and hedged yourself to take out some of the interest rate risk. As we just saw from the prior witness, Lehman Brothers received in the swap market, they received a fixed rate of interest.

THE COURT: They paid for a hedge.

MR. HASTEROK: Correct, your Honor. So, if you think about it, day one they do a trade where they're receiving a fixed rate of interest with some other dealer, J.P. Morgan, Morgan Stanley, whoever, it doesn't matter, but they're facing some other dealer in the market with the hedge. Now in your scenario rates are much, much higher, they owe money on that hedge to the dealer.

THE COURT: I got it. Okay, thank you.

MR. HASTEROK: That's where the loss is coming from, from that hedge partially.

THE COURT: I got it. Thank you very much. Sorry, Mr. Lawrence.

MR. LAWRENCE: Oh, no. Your questions are the most important so feel free to --

THE COURT: You say that to all the judges.

MR. LAWRENCE: It's a good practice, your Honor. Have you had any prior relationship to the TSA or any related (indiscernible) Finance Commission before you were retained?

MR. HASTEROK: I have not.

MR. LAWRENCE: And you were retained with another person, Dan Curry, correct?

MR. HASTEROK: Yes, sir.

MR. LAWRENCE: Could you explain your respective expertise or roles in coming up with the expert report that

you did?

MR. HASTEROK: Sure. Mr. Curry and I both worked at Morgan Stanley on the same desk. We sat a few feet from each other. Unfortunately, we were both relieved of our duties due to a reduction in force on the same day in early 2012 because Morgan Stanley was laying off a bunch of people. So, unfortunately, both Dan and I were let go that same day.

My experience and responsibilities were transactional in the sense that I was doing these types of trades day to day. I would respond to the bid specs, I would work with the traders to put a price on things and help them execute the transactions.

Dan's job was -- and certainly I don't want to speak for Dan -- but Dan's job was more broad-based and his expertise is more in tax and structuring and certainly as an advisor to us at the desk level on how to do these types of trades. So our experience is complementary and both of us worked on these type of products.

MR. LAWRENCE: So what were you asked to do?

MR. HASTEROK: So, when we were engaged to work on valuing the transaction it was simply to provide our best and good faith effort to come up with the proper value of the RFA now that Lehman has defaulted on the contract. And what is in our experience -- using our experience as

transactional -- people who had transactional experience with these exact type of trades, what did we think the proper and fair value is?

MR. LAWRENCE: And how did you go about that task?

MR. HASTEROK: We initially were able to go through the discovery so we were given access to a software program called Viewpoint. So we were able to go through Lehman's production, CSA's production, we were able to look through those documents. We were also able to use public sources such as Googling for whatever is publically available on the Internet. We were certainly able to read the indenture, the agreement itself, its amendment. And once we had gone through the background submissions and the discovery we were then able to discuss between the two of us what we though was the most appropriate way to value the termination amount, given the default.

MR. LAWRENCE: And what were the sort of key background facts that informed your opinion and approach?

MR. HASTEROK: Well, certainly we wanted to make sure we were all on the same page of what the transaction was. I mean, clearly, there was an unfortunate error in documentation when the trade was first put on. So one of the things you want to do first of all is make sure that we're in agreement as to the size of the trade, the rate, the final maturity date. Clearly, there was an error with -- the

maturity date was changed from 2042 and then amended to 2032. So you want to make sure that you've got all the amendments, that we're all talking about the same exact transactions. So you don't want to try to start valuing something that everybody else believes is a different trade.

So, first of all, you want to make sure you've got that down. Once we're in agreement on that point you look at the RFA itself, every clause, and looking for responsibilities of both parties, and what happens when there's a default. And in this case, Lehman Brothers defaulted in the fall of '08, the RFA had a clause which contemplated the potential that a dealer, in this case Lehman, would default on the RFA, and then you would follow that clause to see what the RFA instructed you to do.

So, we followed that document as close as we could. It said that the first attempt would go out into the market and try to get quotes on terminating the trade.

MR. LAWRENCE: Before we go there...

MR. HASTEROK: Sure.

MR. LAWRENCE: Let me hand you what's been marked as TSA Exhibit X. First let me ask you --

THE COURT: Mr. Lawrence, is there a tab that I can find that under?

MR. LAWRENCE: I'm looking to my team. For ease of reference --

THE COURT: Oh, it's the Valuation Report.

MR. LAWRENCE: Yes.

THE COURT: Okay. Thank you.

MR. LAWRENCE: First of all, is this the expert report you prepared for this case?

MR. HASTEROK: This appears to be it.

MR. LAWRENCE: Okay. If you could turn to Page 4 of the report -- you were talking about the key terms of the RFA. Could you describe what the transaction grid reflects?

MR. HASTEROK: Sure. This is, again, similar to what we were just talking about -- we tried to lay out in clear terms what we thought the agreed upon terms were. And these are some of the major things you would look at when you would start to model or price a transaction. The size, whether that invested amount gets smaller over time. Some deals weren't just 45 million forever, some deals got smaller and smaller as time went on. But in this case it was scheduled to be the same amount the whole time. What the guaranteed rate is, how interest is paid -- there are different day count conventions you can use so you need to make sure you've got that correct. When it closed, what's the final maturity date? We threw in here that there was -- we do acknowledge that there was an amendment to the original trade and this is basically correcting a documentation error.

And then one of the major, major elements of this particular structure is the fact that in the case that TSA's bonds had what's called a turbo redemption, which is essentially meaning there's enough money coming in from the MSA revenues to actually pay down the bonds faster than they originally predicted. And when they first structured the deal it allowed the TSA to pay off those bonds, I believe, at par. That was then translated into the terms of the RFA and the dealer allowed the TSA to draw those funds out of the RFA also at par, regardless of the interest rate market at the time. So if rates were up, rates were down, it didn't matter, they could pull money out of this agreement at par, no termination payment due either way, and pull that money out of the RFA and use it to redeem the bonds. So that was a critical thing we needed to understand and figure out how that worked.

MR. LAWRENCE: Is that in part what the court had asked you about in terms of the risk of withdrawing the money?

MR. HASTEROK: That absolutely goes into one of the major risk factors you have to contemplate as a dealer. Absolutely. Because not every transaction had that feature. This was one of the few that did, which makes it more unique and more difficult to model.

MR. LAWRENCE: Now, the first task that you did is

to calculate Section 7.7B losses. Is that right?

MR. HASTEROK: Is that -- do you want me to refer to something in the report?

MR. LAWRENCE: Yeah, referring to the next page of the report.

MR. HASTEROK: Okay. Okay, I'm there.

MR. LAWRENCE: And could you explain what 7.7B losses is and how you calculate it?

MR. HASTEROK: Sure. So, 7.7B means that once the dealer fails to make the next delivery of securities there's going to be a period where potentially the client, in this case Washington, is not earning the guaranteed yield, okay? And they are then allowed to reinvest the funds. They still have their $45 million, TSA still has their $45 million, so they go off and invest that money in something else -- generally speaking, in what's called an eligible investment. Eligible securities, eligible investment, permitted securities. They're kind of used interchangeably a little bit. It depends if you're looking at the bond indenture or the RFA. But they took that money, they were expecting to give it to Lehman Brothers and earn their guaranteed yield. Lehman didn't show up to give them that yield so they turned to some other instrument to earn some rate of interest. And, in their case, they invested it in a money market fund, which they were allowed to do under their indenture and the

RFA.

MR. LAWRENCE: So, what period is this calculated for?

MR. HASTEROK: So, this is going from December of 2008 to the rejection date, which is in March of 2009.

MR. LAWRENCE: It's basically the little life of the contract between the first failure of delivery and the rejection date?

MR. HASTEROK: Yes, sir.

MR. LAWRENCE: And what did you come up with?

MR. HASTEROK: A little over half a million dollars. So, $553,080.02.

MR. LAWRENCE: Now, were you asked to assess the ability of the TSA to secure a replacement for a delivery agreement?

MR. HASTEROK: We certainly took it into account because if the TSA could secure a fully -- a replacement RFA that mimicked the economics that they were already entitled to, this exercise would be far simpler. Because if they were able to go into the same exact contract with a different dealer at a different rate, we would be arguing over what that new rate is and the differential versus the 4.484. This would be a simpler exercise. But as people who have traded these and structured these at a transactional level, we needed to know whether that was plausible -- whether it was

plausible that they could actually replace it.

MR. LAWRENCE: And what is your opinion about whether it was plausible for TSA to secure a replacement for a delivery agreement in March of 2009?

MR. HASTEROK: In my expert opinion as somebody who traded and transacted in these, they had no ability to find a replacement transaction that exactly mimicked their economics.

MR. LAWRENCE: And can you explain why?

MR. HASTEROK: Sure. As some of the other witnesses have talked about, when a dealer would do a transaction such as this it generates risks on your books. Credit risk, market risk, delivery risk, all kinds of different risks. In '08 and '09, the financial system was in what's called the great credit crisis or the financial crisis, everybody uses different words for it. But what happened is the dealer community, their appetite for taking these type of risks fell dramatically. Holding a transaction like this on your books for years, and years, and years became far less appealing. It didn't make sense from a return on capital standpoint or a return on asset standpoint or whatever return metric you want to use. But from a dealer point of view, this business looked less and less attractive because of risks that you thought were well-behaved prior to 2007 and '08, and '09, back in the early 2000s when this was

bid out. There was more of an appetite to take on this risk profile. But once the world blew up, so to speak, the dealer community said, "Enough. We're not doing this anymore. It's too risky. We can't earn enough to make us interested in doing these trades."

MR. LAWRENCE: Did Morgan Stanley do any tobacco reserve fund for purchase agreements in 2009?

MR. HASTEROK: No.

MR. LAWRENCE: Are you aware in your experience in dealing with other traders in that period in March 2009, was anyone doing tobacco RFAs in March of 2009?

MR. HASTEROK: Not to my knowledge.

MR. LAWRENCE: Okay. And if you look at Page 7 of your expert report, there on the top, is that were you state your opinion about...?

MR. HASTEROK: Yes, sir.

MR. LAWRENCE: Okay. Now, next you were asked to figure out the termination amount under the contract, correct?

MR. HASTEROK: Yes, sir.

MR. LAWRENCE: And in your expert report you cite the termination amount definition. Could you go through what is important about that definition in terms of your calculation?

MR. HASTEROK: Sure. So, we're still on Page 7 and

Mr. Lawrence has highlighted romanette 3 which is a subset of the defined term, termination amount. We are at this point in the report jumping to romanette 3 because in the earlier part of the termination definition it speaks to trying to obtain quotes, of trying to obtain a replacement provider. And at this point in the report we've realized that there is no replacement provider that's going to step forward and step into Lehman's shoes and face Washington anymore. And the process to try to obtain quotes failed. So once that quote process fails, once you realize that there is no one that can step forward and take Lehman's position, your next step is to go to romanette 3, which is the burdened party, which in this case is Washington TSA and always is Washington TSA -- the burdened party gets to determine in good faith their total losses and costs. And the bold in the clause is our emphasis. That's not in the termination -- but we added that emphasis.

So, we look at this and say, this gives pretty broad discretion to the burdened party to calculate their losses because they've tried to go and get quotes, they've tried to get a replacement (indiscernible) and no one would step forward. So now it's the next best thing. How can we calculate losses on what is now a very illiquid and hard to model and hard to price contract? And it gives tremendous discretion to the burdened party in how they calculate that.

MR. LAWRENCE: So, how did you go about figuring out what TSA's total losses and costs are?

MR. HASTEROK: As professionals who sat on a desk and actually transacted these types of trades, we would think about all the reasonable options that TSA could've done and can still do to mitigate their losses now that they've lost the guaranteed rate. So we tried to think of a whole host of things that they could do that were permitted by their restrictions under their bond indenture, which are, quite frankly, very, very restrictive. And so they don't have carte blanche ability to behave like a hedge fund or behave like a large sophisticated asset manager. They can't do everything. They have extremely limited solutions as to what they can do now that this contract has collapsed and they're trying to replicate that guaranteed rate as best as they can. So, we would think about all their options, given the terms of the RFA and the terms of their indenture.

MR. LAWRENCE: Now, the first step -- it was a two-step process, correct? If you look to the next page of the report...

MR. TAMBE: I'd object to leading but...

MR. LAWRENCE: Just trying to move this along.

MR. TAMBE: That's fine.

MR. LAWRENCE: What was the first step that you took in the process?

MR. HASTEROK: Sure. So, although the RFA does have a stated maturity date of 2032, one of the things we certainly contemplated was the fact that they do have a clause in the RFA that allows TSA, as we've talked about before -- that allows TSA to draw funds out of the agreement at par, no termination payment due to either party, if tobacco revenues are sufficient enough to turbo the bonds and retire the debt early. So, although it says 2032, potentially the agreement could collapse earlier than that. It is possible.

So we had to analyze what is the most appropriate final maturity date to use when calculating the losses. So, one of the things we looked at was what is reasonable? What is a reasonable assumption for a burdened party when calculating that? And in our opinion, the reasonable assumption was to go out to 2032, the final expected date. The reason why is because -- yes, although when they first did the bond deal in 2002, there was some expectation that the bonds might be retired earlier and, in fact, in the OS it says 2019; however, that 2019 comes from a scenario analysis by a consultant that gets hired by the issuers, the tobacco issuers when they do the original bond deals. And inside the bond deal you can see the different scenarios that they project. They project a baseline scenario, a worst case, a best case scenario, they present a whole bunch of

different scenarios and they base the structuring of the bond deal on what's called the base case scenario.

Unfortunately, that base case scenario is proved incorrect. It's proved too optimistic. And tobacco revenues have been slower than what the base case assumed. What that means is you're trying to project how much income is going to be going into the master settlement agreement over time and that's primarily dependent on smoking behavior, domestic smoking behavior. What has affected that -- and Mr. Curry I think will speak more to this. I think he's more of a tobacco expert than I am -- but some of the elements that go into that are more people smoke using e-cigarettes or electronic cigarettes now. And there have been cases where tobacco manufacturers who are not a member of the agreement from the late nineties, the master settlement agreement, have also drained revenues away from what is going into the bond deal.

So, the point is that the original scenario analysis done by the consultants when they structured the bond deal were too optimistic. They expected too much money coming into the master settlement agreement and generating too much tobacco revenues. They overestimated. The reality is the money was a lot less, therefore, the retirement of the bonds or the turboing the bonds is happening a lot slower than people expected.

MR. LAWRENCE: We'll ask for some more detail from Mr. Curry.

MR. HASTEROK: Okay.

MR. LAWRENCE: So you've come to the opinion taking you out to 2032. What's the next step in your analysis?

MR. HASTEROK: Sure. So --

MR. LAWRENCE: If you go to Page 12 of the report...

MR. HASTEROK: Thank you. So, once we've decided the approximate final maturity that we could calculate their losses out to, now we have to decide well, what vehicle are they going to use to try to replicate their lost yields as much as possible? And they have a bunch of different things they can do under the indenture but for the most part they are restricted to buying securities that mature in six months. So, under their terms of the indenture they included buying commercial paper, buying CDs, bank CDs, buying treasuries and agencies, and investing the money in a money market fund. They were also allowed to purchase what's called a guaranteed investment contract. Think of that like a customized corporate bond, is kind of the way you think about that. It's really nothing more than "I'm an investor, I have $45 million, I give it to a provider." We're not doing the buy and sell of securities every six months

anymore. It's just "Here. Here's money."

THE COURT: The RFA without posting the collateral? No collateral RFA?

MR. HASTEROK: I wouldn't use the phrase -- you're not actually posting collateral under the RFA. To be --

THE COURT: Providing securities.

MR. HASTEROK: Correct. I'm being hyper-technical but yes, we're on the same page.

THE COURT: Good. Okay.

MR. HASTEROK: You're essentially buying a bond issued by the provider, and the provider's agreeing -- some customized terms to that bond. So, in this case, they would allow TSA to get out at part. You'd be able to terminate your bond, so to speak, but you'd terminate your GIC at par if you needed to because there was a shortfall in debt service or they needed to turbo the bonds. That is an eligible investment under the indenture. You have to be an A or better rated counterparty. If it drops below the A rated category, the dealer has to collateralize the invested balance so that becomes more like a repurchase agreement.

So we looked at all of those. We looked at all those scenarios.

MR. LAWRENCE: You highlighted in your report a particular section of the indenture, correct? On Page --

MR. HASTEROK: Yes.

MR. LAWRENCE: Why did you highlight that? And I have to say it's my highlighting but it's their report that concludes that --

MR. HASTEROK: Yeah, so this is what I was talking about in terms of the maturity limitation, which is very onerous, quite frankly. It's conservative, it makes sense given the uses of the fund, which is to be ready and able to pay off bondholders, it makes sense that a clause like this is in their indenture. So, the downside is it's very restrictive and they're very, very limited in what they can do because of this very, very short maturity limitation. When it says, "Before the business day preceding next distribution date" it basically means every six months.

MR. LAWRENCE: Now, going about this, and I think you heard, one of the criticisms that Lehman made in their opening is that you did something that is unheard of like leaving in a flat world -- you did not apply the forward curve. Could you tell us about your thinking on that and why you decided that the forward curve was inapplicable?

MR. TAMBE: The only objection I would have is given the foundation that's been laid for his expertise, which is his experience --

THE COURT: Yes.

MR. TAMBE: -- he should limit his answer to opinions formed based on experience, not monetary theory,

fiscal policy, things that I believe are beyond his ken in terms of the forward curve.

MR. LAWRENCE: I think that's part of his motion to exclude, which we decided would be addressed after this testimony.

THE COURT: Okay. I don't know that I see the distinction, Mr. Tambe.

MR. LAWRENCE: He's not going to reject academic analysis. He's going to talk about it in terms of his experience.

MR. TAMBE: Experience, that's fine. I think that's the only perspective from which he can speak. The question was broader than that.

THE COURT: Okay, but it's limited by what he knows in terms of his experience.

MR. TAMBE: That's right. That should at a minimum be our understanding, that it's limited. Any opinions he expresses here should be limited on (indiscernible) experience.

THE COURT: Yes. We're good. Let's keep going.

MR. LAWRENCE: Yeah. I would prefer we didn't have the significant talking objections. But inapplicability of forward curves. Why did you decide not to apply a forward curve analysis here?

MR. HASTEROK: Sure. So, again, as employees of a

desk that actually transacted in these types of trades, our first instinct is to go to the methodology that we would've used as a dealer doing this trade, which would have been start with a very simple LIBOR swap, which is generally speaking receive a fixed rate of interest and pay floating rate LIBOR, usually three-month LIBOR. Take that rate, take that structure and then apply adjustments to it based on the credit risk of the counterparty, in this case Washington TSA, the risk of turbo redemptions, which was very unique to this structure, the cost or benefit of delivering securities over time to them in relation to three-month LIBOR. We would make all these adjustments and come up with an all-in price, similar to what Lehman did in 2002 when they bid on this transaction, Morgan Stanley happened to bid on this transaction actually. We were a bidder in 2002. So, our first instinct is to use that machinery and apply it to this structure.

MR. LAWRENCE: So why didn't you here?

MR. HASTEROK: Because you cannot blindly use a method unless you understand its assumptions, okay? It's not enough to just say, "This is how it's always been done so we should always do that in the future." It's not good enough. It's especially not good enough when we have an example of an inability to obtain replacement providers that almost certainly would have used the old machinery of pricing these

trades as a LIBOR swap minus a spread -- is almost universally how these trades, in our opinion were priced -- but the assumption underlying that method is that a client, in this case, Washington, now can no longer get that trade done anymore, right? They can't find a replacement provider. They cannot engage in these hedge transactions that a dealer can do. A dealer can go out into the market and do long-term swaps. We just saw one of the exhibits was form the day one booking when Lehman won the transaction and they said, "We went and received fixed in 30 years and we received fixed in 15 years." These are their long-term hedges. It's the ability of the dealer to do those things and actually transact in those hedge instruments which makes the method and the machinery work and applicable.

Now that TSA can't do this, we didn't feel it was fair and appropriate to calculate their losses because we felt it overstated the earnings that they were going to earn and, therefore, understated their losses. We thought it was biased against them.

MR. LAWRENCE: What is it about the forward curve that is biased against as party such as TSA that can only engage in short-term as opposed to long-term transactions?

MR. HASTEROK: Sure. So, if you think about a long-term hedge, one of the features of it is that you're locking in, you're earning a rate that is traditionally

higher than short-term rates. It's not always the case. Sometimes short-term rates and long-term rates are the same. It happens form time to time. But, generally speaking, 10 and 20-year rates are higher than three-month rates and six-month rates, generally speaking. And it certainly was the case in March of '09.

When that is the case, when you have short-term rates relatively low and longer-term rates higher than short-term rates, what that means is what's called an upwardly sloping yield curve is what that means, okay? If you can actually transact and you can actually go and buy something -- you can buy a 10-year treasury or a 15-year treasury, or you can receive fixed in a swap for 10 or 20 years, that's great. You're now earning a far higher yield than you would in short-term instruments. But there's a cost to it. You may have to pay a termination amount if you need to get out before the stated maturity of the instrument.

If I go buy a 10-year treasury today and rates go much, much higher, I'm not going to get out at my purchase price. I'll probably have to sell it at a loss. So, cost and benefit. If you are able to enter into these long-term transactions, great, you're earning the higher yields but you're taking that risk that you might have to break the trade and take a loss.

So, TSA, because they cannot do those long-term

transactions, is subject to the fact that they are just going to earn some type of short-term floating rate of interest over a long period of time. So, the question is how do you project that? How do you come up with what that projection is going to be? When the curve is positively sloped, what the means is it looks like short-term rates and long-term rates and everything is going to be going up forever. It looks like rates are going to go higher, and higher, and higher. And what we tried to do is look through some of the financial literature and certainly our own experience and say, "When you have an up sloping curve, how accurate is that? How accurate does the actual path of short-term interest rates actually follow what's implied?"

And, generally speaking, as our expert opinion says, they don't.

MR. LAWRENCE: In fact, on Page 14 of your report you actually charted an illustration to show this. Could you explain what this chart is and what it tell us?

MR. HASTEROK: Sure. So -- excuse me -- so, we looked at a vanilla LIBOR swap, and let me explain what I mean by vanilla LIBOR swap. Again, I'm sorry if I'm using trader-ese. But a vanilla LIBOR swap is one of the most liquid, easily transactable instruments in the financial markets for large sophisticated players. Large banks, hedge funds, insurance companies. What it means is I'm going to

pay or receive a fixed rate of interest versus paying or receiving a floating rate of interest and, in this case, three-month LIBOR. That is the most common interest rate swap in the market. So we took a simple plain unadjusted swap on March 25th of 2009 and looked at what's called the floating leg of the trade. Swaps generally have what's called two legs. There's a fixed leg, some kind of fixed rate of interest, and a floating leg, which shows what rate of interest is going to be paid on the floating leg.

So, we used a modeler -- we used, I believe, Bloomberg to spit out what the implied path of three-month LIBOR is supposed to follow given the market conditions at the time on March 25th of '09. So, the blue line -- and again, I apologize if somebody's color blind but the blue line...

MR. LAWRENCE: It's the top line.

MR. HASTEROK: Is the top line. The one that's going up and to the right is generated by the vanilla swap model. That's, quote-unquote, the "market expectations".

MR. LAWRENCE: That's the forward curve?

MR. HASTEROK: Forward curve, forward projection of interest rates. What the red line is, the one on the bottom, is what LIBOR actually did, three-month LIBOR, after March 25th of 2009. So, the rejection date is all the way on the left. It's right around one percent is where the

rejection date is. And as you can see, LIBOR itself, three-month LIBOR plunged after the rejection date and has stayed relatively low since, despite the fact that the swap market was telling you it was going to go up, up, up, up, up for the next few years. So, the implied path was wildly wrong and biased to the upside. It was biased to higher rates because the swap market and rates market in general was positively sloped at the time.

So, we view this as an example of bias that overestimates what they could earn in floating rate short-term instruments and underestimates their loss as the burdened party.

THE COURT: Can I just ask you, though -- I mean, this chart ends at -- some time in 2013, okay? And your opinion, you've already testified that part of your opinion is that the proper maturity date is 2032 for the reasons that you have having to do with over-optimism about funds coming in based on how much people are smoking and the turbo feature and the like. So we're looking at what TSA should receive based on a maturity date of 2032. So this graph stops 20 years short of that, okay?

MR. HASTEROK: Yes, your Honor.

THE COURT: So, what am I supposed to assume or think about the next 20 years after this chart stops? Because what you're telling me is "Look, I looked at what

the forward curve was, quote-unquote, 'predicting' although I understand the forward curves don't predict, they reflect market expectations -- and, oh, look what happened based on the red line, it's dramatically different and, therefore, that was unfair to TSA." So, the problem that I'm having, the difficulty that I'm having in trying to understand this is are we talking about actual reality that occurred that we now have the benefit of looking at with hindsight? And, if so, if we're looking at actual reality, why is it appropriate to stop with reality as of 2013, given -- and you'll forgive my lack of sophistication -- but there was an election yesterday, there's a new director of the Fed, all kinds of things have happened and are going to continue to happen -- the government stopped buying bonds, I've heard -- that could affect the blue line and the red line. How am I supposed to understand how that fits in to your opinion? And I apologize for the length of the question and the interruption of the questioner.

MR. LAWRENCE: Again, happy to have you interrupt me.

THE COURT: Do you understand my question?

MR. HASTEROK: I'll try, your Honor.

THE COURT: Okay.

MR. HASTEROK: Correct me if I'm wrong, your Honor, but I believe you asked why did we stop at this

point?

THE COURT: Well, I understand why you stopped but I want to know, like what's next?

MR. HASTEROK: Sure, sure. Well, we stopped because when we wrote -- we wrote this report in December of 2013.

THE COURT: Okay.

MR. HASTEROK: So, we only had --

MR. LAWRENCE: She wants to know how does she figure out the future?

THE COURT: So, based on this, in other words --

MR. HASTEROK: Sure.

THE COURT: Let me give a very simplistic example. You know those old-fashioned gumball machines?

MR. HASTEROK: Yes, your Honor.

THE COURT: Right, when we were kids, you know, and your mother would give you a nickel and... So I put five nickels in and I get five red gumballs, right? And I say, "Wow, all the gumballs in the machine must be red." But when you look at the gumball machine, they're all different colors, okay? So, because I'm looking at this slice where the actual three-month LIBOR reset is down below one, you're telling me it's going to stay there. And what I'm saying to you is why aren't I looking at the whole gumball machine? Why isn't this a cherry-picking data analysis?

MR. HASTEROK: Sure. Yes, your Honor. So, all we were trying to show is on the rejection date, because the rejection date itself is very important to the valuation. We're all very focused on that date. To assuage your concern, we did also look at -- we were trying to find other samples of what the market implied via the swap market and how rates actually progressed afterwards beyond this one snapshot date. So some of the other articles we referenced showed those type of relationships. And what you would see is, essentially, the projection of rates on a day and then these little tails that would peel off from that. And we've looked at that going back and forth beyond the rejection date.

What we're trying to get at is rarely does what the market projections say actually come to fruition. So, yes, you're right, we're only taking one day here but it is our experience that the market projections -- as people who transacted in this stuff, the market projections are almost always wrong, okay?

MR. LAWRENCE: I think your question is something that he will answer --

THE COURT: Okay, I think the best way to do this is for me to let you keep going.

MR. LAWRENCE: Okay. Because I think we do get to that.

THE COURT: Okay.

MR. LAWRENCE: Let me just finish up with the chart.

THE COURT: Sure.

MR. LAWRENCE: And maybe take a mid-morning break.

THE COURT: Sure.

MR. LAWRENCE: Okay. So, just to finish up with this chart, if you were using the forward curve of three-month LIBOR as a dealer and you wanted to capture the forward curve, how would you do that?

MR. HASTEROK: As a dealer, I would actually transact. I would call another dealer or I would call a central counterparty which clears these type of transactions, and I would actually enter into a longer-term transaction.

MR. LAWRENCE: Okay.

MR. HASTEROK: Such as --

MR. LAWRENCE: So if you were -- and this is as of March 29th, you'd buy a hedge out here and out here off the chart, right? You'd buy a bunch of hedges out in the future?

MR. HASTEROK: Sure, you could -- the way the phrasing is is you would receive fixed like in a LIBOR swap for ten years, five years, 50 years, 100 -- I mean, if you can convince somebody to do it, great, 100 years. But generally, swaps are quoted out to about 30 years on a

regular basis.

MR. LAWRENCE: Could the TSA do that?

MR. HASTEROK: To my knowledge, no.

MR. LAWRENCE: Why don't we take a mid-morning break here?

THE COURT: Yeah. Why don't we take about a nine-minute break. We'll start again at 10 minutes after 11. Mr. Hasterok, you remain under oath. You're not to discuss your testimony with anyone or be in anyone's presence while they're discussing anything about the case. All right?

MR. HASTEROK: Yes, your Honor.

THE COURT: Thank you.

[BREAK]

THE COURT: I apologize for the delay. I'm in the middle of entering a TRO and -- doesn't it look like I am? And I just needed to consult with my (indiscernible). I'm sorry. Please take a seat.

MR. LAWRENCE: If you could turn to Page 15 of your report.

MR. HASTEROK: Yes, sir.

MR. LAWRENCE: And on the top you have a section, Limitations of Applying Historical Averages or Actual Reinvestment History to Future Returns, and I think this goes to really what Judge Chapman was asking. You acknowledge past performance, no guarantee of future

results, etc. Why did you choose the yield rate going forward to 2032 that you did?

MR. HASTEROK: We decided that the actual transactions that the TSA engaged in -- so, not a hypothetical, not a model but what they actually traded, which was in this case investing in a short-term money market fund. We viewed that as the best, as the next best way of trying to calculate what they were going to earn in the future. So we used those returns from the first date of failed delivery to rejection date.

MR. LAWRENCE: And why is that more reasonable than using a forward curve, in your view?

MR. HASTEROK: As I discussed earlier, we believe that the forward curve, as implied by the swap market, tends to not accurately predict the path of short-term rates and, therefore, if you cannot as an entity transact in those long-term contracts, you are subject to the fact that you're going to be earning a floating rate of interest -- and, therefore, you are worried that if your loss is calculated based on some implied path that's generally always wrong and generally always wrong to the high side, meaning it's implying rates too high in a scenario like this where rates are positively slow, then projecting rate's going to be higher, and higher, and higher -- you're worried that that's going to overestimate what you're actually going to earn

being stuck in short-term investments.

MR. LAWRENCE: So why not use historical averages?

MR. HASTEROK: We certainly looked at it and we looked at a variety of different short-term investments that they could've invested in. We looked at CP, CDs, agencies.

MR. LAWRENCE: The question is why didn't you use historical averages?

MR. HASTEROK: Sure. So, we looked at the historical averages from those different types of investments and the problem with it is that the yield that you get, the average yield you get from looking at past time series data is very sensitive to whatever time series you pick. So, if I look at the history of T-bill rates for 30 years, or 20 years, or 10 years, or five, or 100, or whatever it is, and you calculate an average, that average yield you get is going to be very different depending on the time period you pick.

So, we were worried that whatever time period we picked is going to be viewed as too arbitrary. It's going to be viewed as "Well, you picked five years. Well, why did you pick five years of averages? Why didn't you pick ten? Or you picked ten, why didn't you pick five?" And it was, in our view, more defensible to view actual transactions as opposed to historical averages that the client didn't actually do.

MR. LAWRENCE: So, if you could turn now to Page

19 of your report, there is a chart that you call Valuation Matrix. Could you explain what's depicted in that chart?

MR. HASTEROK: Sure. So, this is our attempt to provide some scale and some context for the different ways of calculating loss. And the reason why we did it this way is instead of just picking one number, is to give a sense of what's called sensitivity analysis, to give a sense of if you change the maturity date or if you change the projected returns, how does that affect the loss numbers?

So, the matrix here has -- going down the first column -- different types of investments that the TSA could theoretically invest in that matches their limitations under their eligible investment guidelines in their indenture. So, commercial paper, CDs, agencies, and then their actual reinvestment history plus there's a swap scenario that we can talk about later, if you'd like. So, different past periods and then two different time periods. One of them is commensurate with the first failed delivery up to the rejection date and then the other time period is generally the rejection -- or sorry, I apologize -- the first failed deliver to approximately a few months before we prepared the report. We prepared this report in December of '13, so the data that was available to us in general ended a couple of months before December of '13. If I remember correctly, the CD data ended in June of '13 so for comparison's sake we

elected to just cut everything off in June of '13 so that the dates would all line up. But we had CP data that went a little bit longer than June of '13 but it was trying to make the comparison a little bit more vertical.

So, those are the different things you can earn. And then on the top row going across, here's the different maturity dates. You can assume, well, what if the contract fully terminated in 2019 or as we're asserting going all the way out to 2032. And then we priced what we viewed to be the appropriate termination amounts given those assumptions. And what this does for you is gives a sense of context and scale for the method we eventually ended up picking. So, we felt like it was more rigorous to not just pluck a number out of the air but to look at multiple different scenarios, multiple different methods and figure out which is the most reasonable and how different is our final solution versus these other scenarios?

MR. LAWRENCE: And could you just briefly explain what the bottom option is, what you call the Cancelable Swap?

MR. HASTEROK: Sure. So, that is -- it was as close as we could think of to what TSA could actually do in the swap market with many, many, many caveats. And there's a section in this report that actually talks about those caveats and why we thought it's not ideal and it was not the

solution we ended up picking. But it essentially means that TSA would've gone to the dealer community and said, "I don't want to do an RFA; I'd like to do a swap. And I would like to received fixed for X number of years." So we ran it from 2019 all the way up to 2032. "I'd like to do a swap, I'd like to receive fixed and, by the way, I'd also like to get out of this trade every six months if I want to." So I have the ability to just terminate it, I meaning TSA. TSA would have the ability to terminate the trade, no payment due either way, every six months.

MR. LAWRENCE: So if you look to Page 18 of the report, is that where you detail why -- the problems you saw with that particular type of investment?

MR. HASTEROK: Yes, yes. That's where the issues come up with that model.

MR. LAWRENCE: Okay, so going back to the valuation matrix, could you tell us what you chose to do your termination calculation?

MR. HASTEROK: Sure. We ended up settling on four -- the fifth row from the bottom, which is, it's called Actual Yield, December of '08 to March of '09. Which is representative of their actual transactions in money market accounts from the first failed delivery to the rejection date. They earned approximately 65 basis points on average -- it's not that they did not earn 65 flat. It actually

started higher than that and dropped during that period. But it averaged approximately 65. And then we eventually chose the number all the way on the far right, which is 37.5, which means $37.5 million payable from Lehman to TSA as TSA's loss under the calculation of termination amount.

MR. LAWRENCE: So let's go back to the .65 for a second. I think you saw in Lehman's opening that they did this flat line .65. Is that reflective of your opinion, that is, that there's a flat .65 percent from here to eternity?

MR. HASTEROK: No.

MR. LAWRENCE: Could you explain why that's a wrong depiction of what you're saying?

MR. HASTEROK: I will readily admit that we do not believe that money market rates are going to flat-line at 65 basis points forever. We don't think that's going to happen.

MR. LAWRENCE: So what are you saying?

MR. HASTEROK: So we're saying that on average they will earn approximately 65 basis points until the maturity of the -- until 2032. So, on average. It's certainly going to go up and down but our best guess is that on average, given the market conditions at the time, they'll earn approximately 65 basis points. So, the flat line, it would not be a flat line of earnings. It would go up and down.

THE COURT: What do you mean by "given the market

conditions at the time"?

MR. HASTEROK: Given the fact that we used their actual earnings from the first failed delivery to the rejection date and that was the basis of calculating their average returns. And then we projected that average return into the future.

MR. LAWRENCE: It was based on the market from December to March, I think. Is that right?

MR. HASTEROK: Yes, sir.

MR. LAWRENCE: And that results in the termination value of what?

MR. HASTEROK: 37.5 million from Lehman due to TSA.

MR. LAWRENCE: And what do you add -- does that include the Section 7.7B losses that you testified...?

MR. HASTEROK: It does not. 7.7B is additive to that.

MR. LAWRENCE: Thank you. I have nothing further.

THE COURT: All right, thank you.

CLERK: (indiscernible)

MR. TAMBE: Just getting some technology hooked up, your Honor.

THE COURT: That's fine. That's fine.

MR. TAMBE: Fair warning, there may be some Excel involved.

THE COURT: I've heard of it. Okay.

MR. TAMBE: Good afternoon, Mr. Hasterok. Let's start with your original valuation report, TSA Exhibit X. It should be -- do you have a witness binder?

MR. HASTEROK: I do. I also have what was given to me in the first interview.

MR. TAMBE: All right. If we could just pull up (indiscernible). And one of the pages you talked about was Page 4 of this document. And if we can just enlarge the transaction description grid. And what you set out there is what you believe to be the most critical part of the RFA agreement, correct?

MR. HASTEROK: Those are some of the most critical. It's not inclusive.

MR. TAMBE: All right, so there's some critical parts of the agreement that you left off of your transaction description grid?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. Off the items that you put on there, one that you described as major, major and critical was the second from the bottom, correct? The termination payment on mandatory cleanup redemption. Do you see that?

MR. HASTEROK: I agree.

MR. TAMBE: Right.

MR. HASTEROK: Yes.

MR. TAMBE: And you described on direct why that was so important, correct?

MR. HASTEROK: Yes.

MR. TAMBE: Later on in your report you've done some analysis on Page 11, for example. Are you there?

MR. HASTEROK: I am.

MR. TAMBE: And, generally, what you're discussing on Page 11 is how the early mandatory redemption estimates were overestimated. People were overly optimistic. Is that correct?

MR. HASTEROK: Yes. It appears that the original estimates for tobacco revenues were too optimistic, too high of revenues.

MR. TAMBE: And therefore, one conclusion of that, that you drew from it is, an only redemption is less likely, given where you were in 2009, certainly.

MR. HASTEROK: I agree.

MR. TAMBE: And in fact, that was the basis why you felt comfortable valuing the trade, as of 2032. Correct?

MR. HASTEROK: I agree.

MR. TAMBE: Now you would expect as a dealer, if there was a mandatory cleanup redemption provision, which you described as major, major, and critical, that is something a dealer would take into account at the inception

of the trade. Right?

MR. HASTEROK: They should.

MR. TAMBE: And whatever that risk was, if it was taken into account by Lehman at inception, it was less of a risk in 2009. Right? That's what your graph shows. Correct?

MR. HASTEROK: Less of a risk -- I'm trying to decide if that's a correct statement. It depends on whether you, as a dealer, tried or attempted to hedge that risk at the inception of the trade, and whether you dynamically changed your hedge, prior to 2009.

MR. TAMBE: Okay.

MR. HASTEROK: So I'm hesitant to make a blanket statement, it's less risky at that time.

MR. TAMBE: So you might, for example, see a trader who has taken, made some kind of provision at the outset of the trade, for this major, major, critical risk, but later lifts it, because they have a hedge in place.

MR. HASTEROK: Well, that's certainly what happened here. They transferred some of their risk to Briarwood, so we're aware of that.

MR. TAMBE: And so you understand the part of the charges and the risks that were recorded by Lehman at the inception of this trade, were in fact related to this mandatory cleanup option. Correct?

MR. HASTEROK: It appears to be the case.

MR. TAMBE: Okay. Those weren't charges that were related to the riskiness off the tobacco counterparty. Correct?

MR. HASTEROK: No, I don't agree with that.

MR. TAMBE: You'd agree with me, that whether or not there is early redemption, has nothing to do with the interest rate (indiscernible). Correct? That's not one of the opinions you expressed in this case.

MR. HASTEROK: Yes, for the most part, yes, I agree that the tobacco acceleration risk is less directly affected by the interest-rate environment. I can't for 100 percent certainty say, but yes, I would agree with you. It's mostly irrespective of the interest-rate environment.

MR. TAMBE: And you, I think, described to the Court, that the credit exposure that people are concerned about, when they're looking at credit exposure is -- to market exposure, the risk that the dealer faces when interest rates go up. Correct?

MR. HASTEROK: Yes, that is generally as a dealer, when you're worried about an acceleration or a credit event.

MR. TAMBE: And the risk of interest rates going up, doesn't directly translate to the Tobacco Authority, defaulting on its bonds. Correct? Those are two independent events.

MR. HASTEROK: Probably not 100 percent independent, but mostly independent.

MR. TAMBE: And regardless of what the variations may be around the edges, you were comfortable, for purposes of your opinion, saying as of 2009, March 25, 2009, you should value this trade, going out to its full maturity, 2032?

MR. HASTEROK: Yes.

MR. TAMBE: So you should give no weight to any kind of a mandatory cleanup option?

MR. HASTEROK: We considered it, but made our best guess, and our expert opinion is that you should go out to 2032.

MR. TAMBE: That's the number, finally, you select from your grid, is 2032, not an (indiscernible) number. Correct?

MR. HASTEROK: Correct.

MR. TAMBE: One of the other items you mentioned on direct was that there were few dealers with the experience and the balance sheet to enter into tobacco RFA transactions. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Morgan Stanley was one of them. Correct?

MR. HASTEROK: Prior to certainly '08 and '09, but

yes, in the early oughts, yet.

MR. TAMBE: And prior to September 2008, Lehman was one of them. Correct?

MR. HASTEROK: Absolutely.

MR. TAMBE: And PFM was a financial advisor that you had seen put out bid sheets on behalf of its clients in that market. Correct?

MR. HASTEROK: Absolutely.

MR. TAMBE: You'd never seen Schwab Financial Group do that. Correct?

MR. HASTEROK: I don't recall off of the top of my head.

MR. TAMBE: So you'd never seen Schwab Financial Group do that. Correct?

MR. LAWRENCE: Objection, asked and answered.

MR. TAMBE: You hadn't seen it, had you?

MR. HASTEROK: I don't recall.

MR. TAMBE: So you have no recollection of ever seeing Schwab Financial Group out there seeking bids on tobacco RFA's the way PFM was?

MR. HASTEROK: I don't recall.

MR. TAMBE: Just so we're clear on this, and I believe you said this in your rebuttal report, in all your years at Morgan Stanley, you never valued, either at inception, or at any other time, a forward purchase

agreement, the way you valued this one. Correct?

MR. HASTEROK: Correct.

MR. TAMBE: And you're not aware of anyone else at the Morgan Stanley desk, valuing a forward purchase agreement, the way you valued this one here. Correct?

MR. HASTEROK: We never had to contemplate a dealer default before. So no, we did not use this method.

MR. TAMBE: So the answer to my question is, you did not use this at Morgan Stanley.

MR. HASTEROK: We did not use it. Correct.

MR. TAMBE: And the methodology that you and Mr. Curry adopted for purposes of your expert report, that's not a methodology that you found in the academic literature. Correct?

MR. HASTEROK: I'd say we found an example, where a no-change scenario is plausible. Did I do an absolutely exhaustive review of every financial journal? No. I'm not an academic, and don't do that type of work.

MR. TAMBE: Right. You didn't do that type of analysis.

MR. HASTEROK: Correct.

MR. TAMBE: And if you had done that type of analysis, and you had identified a journal, that you believe supported your approach, you would have listed it in your expert report. Correct?

MR. HASTEROK: Sure.

MR. TAMBE: And you do list some sources, both in your original report and your rebuttal report.

MR. HASTEROK: Yes.

MR. TAMBE: Let's go back to your expert report, exhibit X, and go to the grid, which I believe is on page 19. So your exercise here, was to identify various potential replacement investments. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Ones that the TSA could actually enter into in March 2009. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you considered those, both in March of 2009, and in subsequent periods. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you don't have a line item on there for guaranteed investment contract, the GIT. Correct?

MR. HASTEROK: We do not.

MR. TAMBE: And you know from the discovery in this case, that there were GIT products that were offered to the TSA from time-to-time, after March 25, 2009. Correct?

MR. HASTEROK: Yes, I believe we mentioned it later in the report itself.

MR. TAMBE: And you heard -- I think you were in the courtroom yesterday, when Mr. Cook testified.

MR. HASTEROK: Yes.

MR. TAMBE: And he said, for example, the Barclay's GIT, which had a guaranteed rate of 2.75 percent over five years annually, was a product that met the guidelines, was eligible under the RFA. Correct?

MR. HASTEROK: I would say it was a term sheet, from my remembering of that, it was a term sheet, that doesn't necessarily mean they could have actually entered into it.

MR. TAMBE: So my question was, you heard Mr. Cook testify, that would have been an eligible investment under the RFA. You were here. Right? You heard him. Correct?

MR. HASTEROK: I was here.

MR. TAMBE: You don't disagree with him?

THE COURT: Okay. Mr. Lawrence, I would like the witness to answer the question. All right? The question has been asked. You need to answer the question.

MR. LAWRENCE: And before the next question is asked. Let him answer, and then he can follow up. But that's really what I was objecting to. Ask the question. Let him finish his answer, and then ask another question. That's all.

THE COURT: Okay. Let's have the question again please.

MR. TAMBE: We could just have it read back. I

think it would be easier.
(WHEREUPON, the court reporter read back the last question asked.)

MR. HASTEROK: I was here yesterday. I did hear Mr. Cook testify. I don't remember exactly what he said, but I do remember the Barclay's memo that was sent. And it was an indication, as far as I can remember, of interest in potentially facing --

THE COURT: Mr. Hasterok, that's not the question that's being asked. The question that's being asked, without regard to whether or not that transaction did or could have been executed, the question is, do the terms of that transaction, as reflected on that exhibit, that was shown to the witness yesterday, does that constitute an eligible security under the bond indenture?

MR. HASTEROK: I don't know.

THE COURT: That's the question. Is it not?

MR. TAMBE: That is the question, Your Honor.

MR. HASTEROK: I don't know.

THE COURT: Thank you.

MR. TAMBE: This is a document that's not in your binder, I believe, but we'll put it up on the screen. It's debtor's exhibit 22.

THE COURT: Do I have that, Mr. Tambe?

MR. TAMBE: It's not in the binder, but I can hand

it up to you.

THE COURT: Thank you.

MR. TAMBE: You're familiar with this document, are you not, sir, debtor's exhibit 22?

MR. HASTEROK: Not intimately, but I vaguely remember reading this in discovery.

MR. TAMBE: Right, and this is a November 11, 2008 memo from PFM. Do you see that?

MR. HASTEROK: I do see that.

MR. TAMBE: And it's setting out some reinvestment options for the TSA. You recognize that, correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you recognize that the rates, that are being referred to by PFM in this document, are far in excess of the 65 basis points that you used in your opinion. Correct?

MR. HASTEROK: Could you give me an example of that in the document?

MR. TAMBE: Sure. On page four of the document, 24155.

MR. HASTEROK: Under portfolio securities?

MR. TAMBE: Yes, do you see that? Do you see the rates that are written in there, in the parenthetical -- 2.68 percent to 3.38 percent for agencies, and 1.32 percent to 1.82 percent for treasuries. Do you see that?

MR. HASTEROK: I do, the second paragraph.

MR. TAMBE: Okay. And that's not a proposal that you built into your grid on page 19 of your expert report. Correct?

MR. HASTEROK: No.

MR. TAMBE: And you know in the 2011 time period, when the Barclay's document came around, there were other proposals that were made to the TSA. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And those offered various investment options to the TSA. Correct?

MR. HASTEROK: Correct.

MR. TAMBE: And those aren't reflected anywhere on page 19 and 20.

MR. HASTEROK: They are not.

MR. TAMBE: Could you locate debtor's exhibit 31? And sir, you've seen this document before, haven't you, debtor's exhibit 31?

MR. HASTEROK: Yes, I believe so.

MR. TAMBE: And you'll see in the top email --

MR. LAWRENCE: Your Honor, we do have an objection --

THE COURT: Okay.

MR. LAWRENCE: -- to this. The top email is hearsay. It's from Nathaniel Singer, who is not here to

testify and was never deposed, and it's hearsay.

MR. TAMBE: It's not being offered for the truth of the matter, Your Honor. I'm just asking if he's seen it. He says he saw discovery in this case.

THE COURT: Okay. So the first question is okay.

MR. LAWRENCE: Yes, he can answer whether he saw it.

THE COURT: Okay.

MR. LAWRENCE: I will grant you that.

THE COURT: All right. Why don't you have a seat, Mr. Lawrence.

MR. LAWRENCE: I'm going to object to the second question --

THE COURT: Have a seat anyway.

MR. LAWRENCE: -- most likely.

THE COURT: Thank you.

MR. TAMBE: Just looking at that first email, the third sentence, ING is offering an uncollateralized GIT at around 5.25 percent. Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: Did you examine the market to see what types of guaranteed investment contracts were available in the market, in or about December 2008, as part of preparing your grid for placement investment, sir?

MR. HASTEROK: We did not.

MR. TAMBE: You did not. And you know from Mr. Cook's testimony, that there are guaranteed investment contracts, that meet the definition of eligible securities under the RFA. Correct?

MR. HASTEROK: Maybe.

MR. TAMBE: And you see a rate out there in December of 2008, of 5.25 percent. Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: And that's considerably higher -- maybe almost ten times the rate you use, for your calculation. Right?

MR. HASTEROK: It is higher.

MR. TAMBE: So one of the documents you provided, as far as your expert materials, was a spreadsheet. You recognize this spreadsheet. Right? It's exhibit 43. This is the electronic version of the spreadsheet.

MR. HASTEROK: I do recognize it.

MR. TAMBE: And you prepared that. You collected the data that goes into that spreadsheet. Correct?

MR. HASTEROK: Yes, sir.

MR. TAMBE: Just looking at this first page, the first tab of the spreadsheet, could you read for the Court, what that tab name is?

MR. HASTEROK: Sure. It's at the bottom of the screen, 25 March 2009. Actual plus 2013, OS proj, which

means projection.

MR. TAMBE: Okay. And briefly, this is the screen on which you do your ultimate calculation. Correct? You pull information from a bunch of other spreadsheets. This is where it all comes together. Correct?

MR. HASTEROK: Yes, if I may, if you tab over -- not that tab, but the tab left of it, correct, right. So I would say we did the majority of our calculations in that tab. But the tab you just referenced, was a bit of a unique scenario. So I felt it was just easier to copy the machinery of that tab, of the first one, copy it over to another one. And it was just a bit of a unique scenario. So that's why it's its own tab.

MR. TAMBE: So let's look at that tab. 25 March 2009 -- you've got some assumptions or data built into the top-left corner of this document. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: You've got the valuation date, the guaranteed rate, the replacement rate, the .65. And that's hard coded in there. Right?

MR. HASTEROK: Yes.

MR. TAMBE: You put in .65, because that's what you picked from one of your other calculations, and you said, this is going to be the replacement rate. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And then what this spreadsheet, this page of the spreadsheet does, is it simply says, it's .65 for each pay period, until 2032. Correct. That's the math that happens at the bottom of this spreadsheet.

MR. HASTEROK: Yes.

MR. TAMBE: (Indiscernible).

MR. HASTEROK: Yes.

MR. TAMBE: If I'm looking at tab, the column I, it's .65 all the way down.

MR. HASTEROK: Yes, I agree.

MR. TAMBE: That's a flat line, right?

MR. HASTEROK: It is.

MR. TAMBE: Now the top of the page, you have collected, I guess some aggregate numbers. Right? So you have a number in cell F3, as of June 1, 2019. It's a 17 million dollar number. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And we recognize that number in the I column. That's your bottom-line number, 37 million dollars. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And the way this works is, if I change this rate, the replacement rate, all those numbers are going to change automatically. Correct?

MR. HASTEROK: They should.

MR. TAMBE: And in fact, you've also got the discount rate hard-wired in. The discount rate is equal to the replacement rate. That's what that equal C4 means. Do you see that, Your Honor?

THE COURT: Yes.

MR. TAMBE: That's the formula and the cell is -- that's telling the program, whatever happens in C4, is going to be the discount rate.

MR. HASTEROK: Yes.

MR. TAMBE: So one could, for example, put in 5.25 percent, as a replacement rate, couldn't we? And you see what that does to your calculations. Correct?

MR. HASTEROK: I do.

MR. TAMBE: And now you have a calculation where, as of May 2032, the TSA owes Lehman, 4.65 million dollars. Right?

MR. HASTEROK: I see that.

MR. TAMBE: That's the way your model works.

MR. HASTEROK: Yes.

MR. TAMBE: We might say, well, maybe it's not 5.2. Maybe it should be 2.75. Right? You could do that as well. And that shows a claim of 13 million dollars, right? You could do that on a variety of replacement options, that were offered to the TSA. But you didn't do any of that. You just went with .65 flat line, all the way to 2032.

Correct?

MR. HASTEROK: We used this tab to put in different earning assumptions, which then populated the grid on page 19 of our original report.

MR. TAMBE: So I backed out of all the edits I made, and we're back to your spreadsheet. Right? Can you see it?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. Let's go another place in your spreadsheet. Well, when you say you put in all the assumptions, you didn't put in the GIT assumptions, right? That's not part of this --

MR. HASTEROK: I agree.

MR. TAMBE: Now one of the things I want to talk to you about, was this tab. There's a tab on the bottom called LIBOR forwards. So let's look at that. Again, that's data you collected. You put that together. Correct?

MR. HASTEROK: Yes, sir.

MR. TAMBE: And I think you said, you got that data for the three-month LIBOR reset data. That's what it is.

MR. HASTEROK: It's two data sources, actually. Am I allowed to explain what it is?

MR. TAMBE: Sure, tell me why you have that date in front of it.

MR. HASTEROK: The first columns are from a Bloomberg swap model, that spits out the implied path of rates. The columns in E and F are actually the realized actual LIBOR resets, which you formerly could get from the British Bankers' Association. You can't anymore. They've changed. But at the time, it was the BBA.

MR. TAMBE: So the B column is data you get from a Bloomberg terminal, providing a Bloomberg function, which gives you the three month implied LIBOR resets. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And you said something about the LIBOR market being one of the most liquid, lots of transactions, lots of activity. Correct?

MR. HASTEROK: Absolutely.

MR. TAMBE: And that Bloomberg function, is not some esoteric function, that's a function that traders, modelers, financiers, use all the time. Correct?

MR. HASTEROK: I agree.

MR. TAMBE: And you would expect Mr. Shapiro and financial advisors, who were (indiscernible) users, also have access to exactly the same data. Correct?

MR. HASTEROK: If not the same, substantially similar.

MR. TAMBE: That's the market. That's what the market is telling you the forward curve is on that date.

Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And that's what you collect, and you put on the spreadsheet.

MR. HASTEROK: Yes.

MR. TAMBE: Now, one of the questions you were asked this morning is, well, you draw this picture over here, which only goes out to 2013. Right? And that blue line is really plotting your data set, right, for four years. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And then it's also adding a red line, which is actual observations that you write in your report in December 2013, could see looking back to March of 2009.

MR. HASTEROK: We couldn't see actual LIBOR resets from the year 2020, because it hasn't happened yet.

MR. TAMBE: That's right. We can talk about projections in a few minutes. You're projecting stuff too, correct?

MR. HASTEROK: Yes.

MR. TAMBE: So we'll come to projections in a minute. But at least as far as market data is concerned, your column B is the market's view, as put out by Bloomberg, widely available. The market's view of what the LIBOR resets are going to be from March 2009, all the way until

2032. Correct?

MR. HASTEROK: For three month LIBOR, yes.

MR. TAMBE: So one could take that curve, for example, and add 66.6 basis points to each of those data points. Correct?

MR. HASTEROK: Sure.

MR. TAMBE: That would be at LIBOR, plus 66.6 curve then. Correct?

MR. HASTEROK: Sure.

MR. TAMBE: And then you could take that data, and you could subtract. I don’t know, say 454 basis points, and you’d shift the whole curve down. Correct?

MR. HASTEROK: I’d be hesitant to do that.

MR. TAMBE: I would be hesitant to do that too. But Mr. Shapiro has done it. You know that. Right?

MR. LAWRENCE: Objection, argumentative. He’s characterized more of what Mr. Shapiro has done or testified, without there being basis yet of the evidence.

THE COURT: Well, the non-argumentative question is whether or not the witness is aware that what Mr. Tambe just described, is in fact what Mr. Shapiro did.

MR. TAMBE: That’s a fair question, Judge.

MR. HASTEROK: As part of our scope and services, we did not do a deep dive into Shapiro’s method.

THE COURT: Okay. So again, I’m going to ask you

to answer the question, which is, do you or do you not know, that that's what Mr. Shapiro did?

MR. HASTEROK: I don't.

THE COURT: Okay.

MR. TAMBE: So let's just do the math, that we just talked about. Let's take your curve -- let's see what happens when we add 66.6 to it. That's -- just so we're on the same page, that's just math. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And it ain't new math or old math, it's just math. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. All right. (Indiscernible). All right, so, and you can double check this, but I think what we did here, was we took your data, which is the implied three-month LIBOR reset column, and we put it into an Excel spreadsheet. And that's what the first of those data columns are. Do you see that?

MR. HASTEROK: Okay.

MR. TAMBE: And then we simply added 66.6 basis points to that. Do you see that?

MR. HASTEROK: Yes.

MR. TAMBE: And then we subtracted, as Schwab Financial Group does, a credit charge and a profit charge, which totals up to 4.54 percent. Do you see that?

THE COURT: Hold on.

MR. LAWRENCE: Again, I would object to his characterization, which is a mischaracterization of what Schwab did.

THE COURT: Okay, let's --

MR. LAWRENCE: He can ask him if --

THE COURT: Let's do the numbers without the characterization. All right?

MR. TAMBE: All right, absolutely fine. So, if one were to deduct a credit charge of 429 basis points, and a profit charge of 25 basis points, that would be a total of 454 basis points, or minus 4.54 percent. Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: And what that would then give you in the last column is another set of numbers, which would essentially be -- you start with a LIBOR curve, you move it up, then you push it down, and that's where the curve ends up. Correct?

MR. HASTEROK: If you sum those three columns, it appears -- I'm assuming you did the math correctly. I trust that you did. But yes, it would end up in negative results in that final column.

MR. TAMBE: And the fact that you end up with negative results, pretty much all the way, except for a brief period, from -- looks like 2018 until 2023. Correct?

MR. HASTEROK: According to this sheet, yes.

MR. TAMBE: And if you were to plot those columns, take that same data, put it into Excel and say, draw me a graph, it would draw you a graph. Correct?

MR. HASTEROK: You could.

MR. TAMBE: It would take that column that we just calculated, your LIBOR curve, plus 66.6, and we're looking at that purple line. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And the green line is just a flat line at 4.484. Do you see that?

MR. HASTEROK: Yes.

MR. TAMBE: And then you could do the rest of the math and show it as a picture. Correct?

MR. HASTEROK: Sure.

MR. TAMBE: Excel lets you do that.

MR. HASTEROK: Sure.

MR. TAMBE: And that's what that would show. Correct? It would show the red line, which is derived from your LIBOR reset data, below the zero percent interest rate. Correct?

MR. HASTEROK: Yes, according to your methodology, yes.

MR. TAMBE: Well, it's not my methodology. That's the math, sir. Isn't it the math we just went through?

MR. HASTEROK: Simple addition and subtraction, yes.

MR. TAMBE: All right. Let's go someplace else with your data set. Let's go back to the expert report, which was X. And again, if we can go to page 19 of X. If you could blow up the grid. So you did two types of calculations, because you thought they were reasonable. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: You did a three-month average, roughly, four-month average?

MR. HASTEROK: Four, yes.

MR. TAMBE: A four-month average, and a slightly longer average. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you come up with rates -- .65 for example, that you then project for the next 23 years.

MR. HASTEROK: Yes.

MR. TAMBE: And you said you thought that was the right average to use. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: There's no academic paper or study you've seen out there that says, that's the right one to use. Correct?

MR. HASTEROK: Correct.

MR. TAMBE: And there were, as you said, other calculations you could have run. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: I mean, for example, if you're going out 23 years, you could have done a 23-year average looking backwards.

MR. HASTEROK: We could have.

MR. TAMBE: To see what short-term interest rates have done, over longer periods of time. You could have done that.

MR. HASTEROK: We could have.

MR. TAMBE: You could have gone back to 2002, when the deal was put on, and look at that average. What's happened to interest rates, short-term interest rates, during the life of this deal?

MR. HASTEROK: We could have.

MR. TAMBE: And you didn't run that calculation, did you?

MR. HASTEROK: No.

MR. TAMBE: And again, as between picking a three-month average, a seven-year average, a 23-year average, there's no academic literature. There's no market practice that you've cited, that says one is better than the other. Correct?

MR. HASTEROK: Not to my knowledge.

MR. TAMBE: That's just what you and Mr. Curry said was, that's the one we're going to use.

MR. HASTEROK: Yes.

MR. TAMBE: And as you said, I believe on direct, it matters what interval you use. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: It makes a big difference.

MR. HASTEROK: Yes.

MR. TAMBE: And we did this during your deposition. Do you remember?

MR. HASTEROK: Could you refresh my memory please?

MR. TAMBE: All right, we can do better. We can re-create what we did at your deposition. Let's go back to the Excel spreadsheet. Now, you collected, in addition to LIBOR data, you collected something in the H15 pivot tab. You collected some other information. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And this is, if you could tell the Court -- what is this? This is treasury information? It's your table.

MR. HASTEROK: Sure. So --

MR. TAMBE: (Indiscernible) is what's the data in each (indiscernible)?

MR. HASTEROK: Sure, it appears to be a cleaned-up version of the H15 data, which is from the Federal Reserve,

which is on the prior tab, that says H15 data. So this pivot table is designed to put it in a form that's presentable, and most importantly, the dates line up.

MR. TAMBE: And you have three columns running -- columns C, D, and E. C is six month UST. I assume that's U.S. Treasuries.

MR. HASTEROK: Yes, sir.

MR. TAMBE: And then you have -- the next column over, D, which is the average of three month's CD's.

MR. HASTEROK: Yes.

MR. TAMBE: I guess that's a proxy for money market funds.

MR. HASTEROK: Well, it's bank CD's.

MR. TAMBE: Bank CD's.

MR. HASTEROK: Which is one of the H15 data sets.

MR. TAMBE: And the next column is E, which is the average of three-month CP.

MR. HASTEROK: Yes.

MR. TAMBE: And again, you're looking at historical rates.

MR. HASTEROK: Yes,

MR. TAMBE: And you're going back in this data set, H15 pivot, all the way to 2002 October. Do you see that?

MR. HASTEROK: Yes.

MR. TAMBE: B8.

MR. HASTEROK: Right.

MR. TAMBE: Now up here in D3, you're running some averages. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And the formula kind of pops up, when you hover over that cell, and shows you, what you really did, was you averaged D82 to D85.

MR. HASTEROK: Yes.

MR. TAMBE: Right? So you can ignore the data that appears; for example, in D8, all the way down to D81. You just picked D82 to D85.

MR. HASTEROK: Yes.

MR. TAMBE: And you did the same thing for example, if you were looking at the U.S. Treasuries. The average you ran was simply a three-month average or a four-month average. You didn't run a full average, all the way going back --

MR. HASTEROK: Correct.

MR. TAMBE: -- to October 2002. But you could do that, and your spreadsheet allows you to do that?

MR. HASTEROK: Absolutely.

MR. TAMBE: Right? So that's column C that has the U.S. Treasury information. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: So you could change this formula, to simply say, tell me what it is from C8 all the way down to C85.

MR. HASTEROK: Yes.

MR. TAMBE: So, can we do that?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. Let's do it. That gives you a rate of 2.75 percent. So if you looked at six months, short-term treasuries, over the life of this deal, data you collected, that you had in your possession, gave you an average of 2.75.

MR. HASTEROK: Yes.

MR. TAMBE: And we did this before. You could take that 2.75 to your first sheet, plug it in as a replacement rate, and it will give you a completely different number for a claim.

MR. HASTEROK: I agree.

MR. TAMBE: Okay. And again, U.S. Treasuries are eligible securities. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And even if the TSA can't enter into a long-term contract in March 2009, every six months, they can go and buy U.S. Treasuries. Correct?

MR. HASTEROK:: They could.

MR. TAMBE: They could do that. And we know, at

least historically, from the data you've shown us, you get an average rate of 2.75 percent over a seven or eight-year period. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. And you could have done that exercise, for example, for a 23-year period, about what treasury rates have been. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And you have that data, because the treasury gives you that data, but you didn't put it in your spreadsheet. Correct?

MR. HASTEROK: I believe that the H15 goes back further. So yes.

MR. TAMBE: Now, you know Mr. Gruer did that. Correct?

MR. HASTEROK: I don't remember.

MR. TAMBE: This one's in the binder, Your Honor. It's 139, debtor's 139. At specifically page 28 and paragraph 93 -- you read this report. You commented on it. Correct?

MR. HASTEROK: We did.

MR. TAMBE: Okay. And so you see what Mr. Gruer's done there. He went to Bloomberg, kind of like you did, and he looked for U.S. government, six-month index. Do you see that?

MR. HASTEROK: I do. Clause 93, right -- paragraph 93.

MR. TAMBE: Paragraph 93, that's right. And you have a sense from Bloomberg. You know what that pulls up. Correct?

MR. HASTEROK: I do.

MR. TAMBE: So it pulls up the T-bill data. He ran a 23-year average, and that average for that period, was 4.66 percent. Right?

MR. HASTEROK: I will trust that Mr. Gruer did his calculations properly.

MR. TAMBE: So again, if you're sitting in March of 2009, and you're trying to provide some guidance or projections, you could do a full month average, or you could see -- I'm looking forward 23 years. I could look back 23 years. What do interest rates do, over long periods of time? Correct?

MR. HASTEROK: You could.

MR. TAMBE: You didn't do that.

MR. HASTEROK: We did not.

MR. TAMBE: And, of course, the claim amount would have been a lot smaller, if you plugged 4.6 into your spreadsheet. Correct?

MR. HASTEROK: The higher the replacement yield, the lower the claim amount. Yes.

MR. TAMBE: So just using U.S. Treasuries, nothing fancy -- U.S. Treasuries, which they can invest in every six months, Just go to the broker and buy them. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: History has told us, for the past 23 years, that would have yielded you 4.6 percent. That would be a no-loss calculation. Correct? We could do it.

MR. HASTEROK: Yeah, it's in excess of the guaranteed yield. So it would spit out a negative number for the claim.

MR. TAMBE: Thank you. Just a question about credit charges. When they go to a broker, and buy 45 million dollars worth of treasury bills, no one charges them a credit charge. Correct?

MR. HASTEROK: Correct.

MR. TAMBE: It's not like (indiscernible).

MR. HASTEROK: Yes, right, you're charged either a commission or the bid asks if they're owned by the dealer already.

MR. TAMBE: And you'd expect from something as liquid, and as widely traded, as the treasury bills, that's a pretty small bid asked. Correct?

MR. HASTEROK: It should be relatively narrow, yes.

MR. TAMBE: Fractions of pennies, fractions of

basis points?

MR. HASTEROK: I personally have never bought and sold them, but my professional experience tells me, that yes, it is very tight.

MR. TAMBE: One of the tightest markets. Right?

MR. HASTEROK: Very liquid, very tight.

MR. TAMBE: And no profit charge, other than what we just talked about. Right? There's no profit charge added by the broker on top of the price of the security. Correct?

MR. HASTEROK: Well, I'd hope there's some profit; otherwise, you're going to not be in business long.

MR. TAMBE: But it's all in there. It's all in what we just talked about (indiscernible).

MR. HASTEROK: It should be a commission or a bid-ask spread, yes.

MR. TAMBE: Not 454 basis points.

MR. HASTEROK: Not buying trade T-bills, no.

MR. TAMBE: In your opening report, you give a rationale for why forward rates shouldn't be used. Correct?

MR. HASTEROK: We did.

MR. TAMBE: And you did some research, to come up with that opinion. Correct?

MR. HASTEROK: We did, as additive to our personal and professional experience.

MR. TAMBE: Going to exhibit X, which is your initial report, the sum total of the research you reported in your original report was footnote 33, on page 14 of 28.

MR. HASTEROK: Correct.

MR. TAMBE: That's what you cited. You said 50 years of UST yields, how well do forwards predict? Do you see that?

MR. HASTEROK: I'm sorry, the page number again please. My fault.

MR. TAMBE: No, no, it's my fault, page 14. It's number 14 in your book.

MR. HASTEROK: Got it.

MR. TAMBE: That's what you cited. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And we discussed at your deposition, you know, why that article? Why not something else? Right?

MR. HASTEROK: We did discuss that article, yes.

MR. TAMBE: And you ran a Google search. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And you looked for something like forward rates, not good predictors, something like that.

MR. HASTEROK: Correct.

MR. TAMBE: You couldn't tell us what search you exactly ran, something like that.

MR. HASTEROK: Correct.

MR. TAMBE: And you couldn't tell us whether this was the number one hit, or on page five.

MR. HASTEROK: I could not.

MR. TAMBE: All right, but this is the one you cited.

MR. HASTEROK: Yes, sir.

MR. TAMBE: Let's pull up TSA, exhibit U. U should be in the binder, Your Honor.

THE COURT: Can anybody supply a tab number?

MR. TAMBE: U.

THE COURT: The binder that I have, both are numbers.

MR. TAMBE: The numbers will end. There should letters towards the end.

THE COURT: Am I in the wrong binder? I apologize. I'm in the wrong binder. TSA U?

MR. TAMBE: TSA U, yes.

THE COURT: Okay.

MR. TAMBE: And we discussed this at your deposition. This is the article, right? This is what you cited.

MR. HASTEROK: Yes.

MR. TAMBE: And it's a blog, right?

MR. HASTEROK: Yes.

MR. TAMBE: This is not a purely academic article.

Correct?

MR. HASTEROK: Not to my knowledge.

MR. TAMBE: And you cite this, I believe, for the proposition in your report. Forward rates as implied by market rates and basis curves, are not generally accurate representatives of the actual path the rates will actually follow over time. And then you cite this article. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Turn to page two of the article, and it's the paragraph that begins, don't get me wrong. This is, I guess, still in blog speak. But this article that you cited, says, "If you are in the financial services environment as a trader, or you're looking to perform a fair price analysis of an interest-rate derivative, using an interest-rate model, you better use forward rates. If you've got complete and relatively efficient markets, you'll get your head removed if you don't." Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: And there was some more discussion, further on in this article that you cite, where the author engages in a dialogue with the commentator. And that's at the bottom of the page.

MR. HASTEROK: Yes.

MR. TAMBE: And you recognize that at the bottom of the page, the paragraph that begins, hi, Sean (ph). Do

you see that?

MR. HASTEROK: Yes, the second paragraph under comments.

MR. TAMBE: Right. That's a response from Mr. Peter Orr (ph) to whoever is writing to him.

MR. HASTEROK: Yes.

MR. TAMBE: And he says, "Hi, Sean (ph), and thanks for the good comment. Just to clarify, my free view, and you get what you pay for, is that if anything, realized rates are likely to be higher, than those forwards, at some point, over that ten-year horizon. At least at the long end." Do you see that?

MR. HASTEROK: I do see that.

MR. TAMBE: And that would be in contrast to what you said on direct, where you said, if anything, forward rates are over predicting. They're too good for Lehman. They're overestimating what future rates are going to be. Right?

MR. HASTEROK: Yes.

MR. TAMBE: That's not the view, that the person you cite -- that's not his view. Correct?

MR. HASTEROK: Yes, it is in conflict.

MR. TAMBE: Okay. Then we get to your rebuttal report. Right? And now you cite a few more things. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Again, for the basic proposition that the Court should not have any faith in forward rates. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: That's the purpose of this. Right?

MR. HASTEROK: Yes.

MR. TAMBE: And this is pages 15 and 16, of your rebuttal report.

MR. HASTEROK: Could you tell me the tab please?

MR. TAMBE: It's tab Z. And so on page 15, you cite an article -- Interest Rate Forecast With Apology. On the next page, you cite, Monetary Policy Inertia, Fact or Fiction? You cite something from Vanguard -- Are Forward Rates a Good Predictor of Actual Interest Rates? And then the last one you cite on that page is, Anticipation of Monetary Policy in Financial Markets. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you quote little excerpts from each of those articles.

MR. HASTEROK: Correct.

MR. TAMBE: And the aim here was, to provide the Court with an accurate picture of what the academic literature was on forward curves. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: You were trying to be accurate.

MR. HASTEROK: Yes.

MR. TAMBE: You were careful. You read all these articles. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Let’s turn to page 146, or tab 146. That’s one of the articles you cited. That’s, Anticipation of Monetary Policy and Financial Markets. And in your report, you identify the authors, and you say staff of the Board of Governors of the Federal Reserve System. Right?

MR. HASTEROK: Yes.

MR. TAMBE: That sounds really impressive. Right?

MR. HASTEROK: It’s on the first page of the report itself.

MR. TAMBE: Right, but there’s a footnote on the first page of the report. Right? These aren’t the reviews of the Federal Reserve System, are they, sir?

MR. HASTEROK: That’s exactly what it -- of the authors.

MR. TAMBE: It’s important. Right? It’s important. Because when you took the stand --

MR. HASTEROK: I agree.

MR. TAMBE: -- you took the stand, and you said what you’re saying here, not imputed to the government. Right?

MR. HASTEROK: I agree. They are views of the authors.

MR. TAMBE: And then what you cite is, what you quote in your report is, I think from -- it's the third page of the document, but it's really the first page of text. It's the page that begins, introduction. I believe you cite part of that bottom paragraph. The variations and the findings of these papers. And what you see there is, the authors of your paper, exhibit 146, cite to a couple of other papers. And there's a little colon there, I believe. Colon -- you see that?

MR. HASTEROK: I do.

MR. TAMBE: So the authors of your paper are saying, we looked at some literature from 1990 and 1995, and those authors seem to be saying the following, "The very short end of the yield curve," and all the way to the end of the sentence. So what your paper is saying there, after it cites the other papers, is the very short end of the yield curve has placed some ability to predict changes in short-term interest rates. But this predictive power fades fairly quickly, as the horizon lengthens. And you cite that in your report. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Let's turn to the next page of this report. With some introduction, the paragraph that begins,

we consider. And you understand what the authors of this paper, exhibit 146 did. They looked at those old papers and said, hey is that still good? That's what they did. Right?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. And they start talking about some of what they found. And they say, second sentence, "Our results indicate that an important shift occurred late eighties and early nineties, in the ability of financial markets to anticipate monetary policy actions." Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: Okay. "Through most of the 1980's, market prices have predicted (indiscernible) for policy actions, only about a month ahead, and responded substantially to contemporaneous movements in the federal funds rate." Last sentence there, "More recently, however, market yields have become much better predictors of monetary policy moves, several months in advance, while the response to contemporaneous policy moves has diminished." That's the conclusion these folks drew. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: And, in fact, just to make sure that's their conclusion, let's go to conclusions, page 19. The first sentence under -- page 19 of the documents, it's two more. Are you there, sir?

MR. HASTEROK: I am, on 19.

MR. TAMBE: It's page 19 of the document. So conclusions begins with the following, "This paper has found fairly striking evidence of an improved ability of financial markets to predict future changes in policy by the FOMC." That's the Fed's Open Market Committee. Correct?

MR. HASTEROK: I agree.

MR. TAMBE: And the next page, the conclusions go on for a little while. Last paragraph, "A caveat to the findings, is that because of our focus of the importance of recent changes, we are unavoidably left with short sample periods. We have been careful to check that our results have not been driven by small sample bias, or by the influence of individual episodes. Moreover, the increase in predictability is remarkably strong, and is evident in a number of different markets, giving more credence to the findings." Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: And you'd agree with me, those are the findings of this paper. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. Let's go to 147. Exhibit 147 is another paper you cite. And again, this is cited for the proposition that forward rates, not reliable. The Court should disregard them. Correct?

MR. HASTEROK: Yes.

MR. TAMBE: The title of the paper is, Monetary Policy Inertia, Fact or Fiction. Do you see that?

MR. HASTEROK: Yes.

MR. TAMBE: You understand that the paper we just looked at, and this paper, it’s talking about the interaction between financial markets and the treasury or the regulators, the government. Do you see that?

MR. HASTEROK: Yes.

MR. TAMBE: It’s all about the regulators trying to get ahead of the market, so the market can anticipate fed action. Correct ?

MR. HASTEROK: I agree.

MR. TAMBE: And so what these authors are really talking about is, is the fed good at surprising the market?

MR. HASTEROK: That’s part of their discussion.

MR. TAMBE: That’s a bit of a cat and mouse game. Right?

MR. HASTEROK: Yes.

MR. TAMBE: The fed adopts a new policy; the markets react. The fed changes policy; the market reacts. Because the markets could foresee what the fed was going to do, the fed would not have monetary policy authority. Right? It would diminish their ability to move markets. It would, wouldn’t it?

MR. HASTEROK: Not necessarily.

MR. TAMBE: Not necessarily, maybe yes, maybe no.

MR. HASTEROK: Maybe.

MR. TAMBE: What you cite from 147 is page 116. And it's a long passage, but it's the top of page 16, beginning with -- I'm sorry, 116. I'm sorry. I can't hear you.

UNIDENTIFIED SPEAKER: (Indiscernible).

MR. TAMBE: Okay. Got it. I just can't see the screen, as big as that is. You cite, starting with the word specifically. Correct? And you quote all the way down to zero. That's what you quote.

MR. HASTEROK: Okay.

MR. TAMBE: And you highlight some stuff in the middle, which I guess you really liked, which was, "They have estimated a variety of interest-rate forecasting regressions, and using financial market expectations, have found little predictive information at quarterly frequencies, with R squared very close to zero." Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: I take it, you examined the R squares in the study here. Right?

MR. HASTEROK: We were looking for quotes like this, so I did not.

MR. TAMBE: Okay. So you were looking for words.

MR. HASTEROK: Yes.

MR. TAMBE: If you go two pages ahead in this report -- actually, let’s go back a page. There are a couple of graphs that look like figure nine and figure ten. Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: Now I think you talked in direct about little squiggly lines. Right?

MR. HASTEROK: Yes.

MR. TAMBE: That’s an example of little squiggly lines. Correct?

MR. HASTEROK: Yep.

MR. TAMBE: And on the next page, figure ten, you’ve got little squiggly lines. Right? And what that’s tracking is, what actually happened to federal funds’ rates, the stair step going up, versus where the market, the forward rates, thought the fed fund rates would be, at each of those intervals. Correct?

MR. HASTEROK: Correct.

MR. TAMBE: And the dotted lines, the expectations, aren’t over predicting the future rate, they’re under predicting it. Right?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. And, in fact, that’s what this

document says. Let's go to the text. The bottom of the page, same page, it's figure ten, page 118. It is apparent -- like three lines from the bottom. It is apparent. Do you see that? So let's highlight that, and we'll go on to the next page. So this article that you cite, says, after discussing what happens in upward and downward moving markets, "It is apparent that many of the expected interest rate paths are remarkably well-aligned with the actual path, for the first three or four months, into the future. However, after about four months, financial markets consistently underestimated the extent of future (indiscernible)." Do you see that?

MR. HASTEROK: Yes.

MR. TAMBE: And let's cover the last one, so we don't leave one out, exhibit 144. And that's the one you cite on page 15. It's got a colorful title -- Interest Rate Forecasts: A Pathology. Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: You quote, I believe, language from -- I don't know if it's called the syllabus or the head note, but that's what you quote from. Correct?

MR. HASTEROK: We quote from this article, yes.

MR. TAMBE: Right. And turning to page 139 of this article, at the bottom of the page, what is apparent -- the last paragraph on this page -- "What is apparent by

simple inspection, is that when interest rates are on an upward (downward cyclical path) the forecast underestimates (over estimates) the actual subsequent path of interest rates.” Do you see that ?

MR. HASTEROK: I do.

MR. TAMBE: And you heard, I believe it was either Mr. Harmon or Mr. Cook say yes, today. They decided not to make some investments, because they thought interest rates were going to rise.

MR. HASTEROK: I remember that from yesterday.

MR. TAMBE: And the treasury data that was available to the market on March 25, 2009, showed upward sloping, treasury forward curves. Right?

MR. HASTEROK: Yes.

MR. TAMBE: Just continuing with this discussion, at the bottom of the page it says, “Much the same pattern, is also observable in the United States and Sweden. One of the reasons why this bias has not been more widely recognized up until now, is that the biases during up and down cyclical periods, are almost exactly offsetting. So if an econometrician applies his or her test to the complete type series, she will find no aggregate sign of bias.” So when you look at longer periods of time, say 23 years, you’re sometimes going to have an upward bias, and sometimes you’re going to have a downward bias. Right?

MR. HASTEROK: I agree.

MR. TAMBE: Okay. But, if you look at a longer time series, there will be no aggregate sign of bias. Right?

MR. HASTEROK: According to this report.

MR. TAMBE: Well, according to this report that you cite. Correct?

MR. HASTEROK: I agree.

MR. TAMBE: Okay. Your Honor, if we could break for lunch now?

THE COURT: All right, let's talk about time, for a few minutes. How much longer do you think you have?

MR. TAMBE: I'm largely done. I think the lunch break will help me figure out what I really need to cover.

THE COURT: Okay. And then on redirect?

MR. LAWRENCE: It will be relatively short, Your Honor.

THE COURT: Okay. So then our intention would be to then go to Mr. Curry?

MR. LAWRENCE: Yes. It will be short, compared to Mr. Hasterok.

THE COURT: All right, and then also have Mr. Shapiro testify today?

MR. LAWRENCE: He is available and willing, and anticipating to testify today.

THE COURT: All right, and it just would appear to me, that it might be prudent to plan for somebody to be here after 5 o'clock. What do you think? In terms of my --

MR. LAWRENCE: If we can go to 5:30, that would, I think, be a better assurance of finishing with Mr. Shapiro today.

THE COURT: Okay. I'm just going to contingency plan for 5:30.

MR. TAMBE: Dr. Babbel will be our first witness. I think he gets into town this afternoon. We can have him come and wait at the Courthouse.

THE COURT: Okay. I don't know that we're going to get there, but that's fine.

MR. LAWRENCE: I think the (indiscernible) is, if we finish with Shapiro today, we will finish tomorrow (indiscernible).

THE COURT: Could I speak to the two of you for a moment please? Half-an-hour, 45 minutes --

MR. TAMBE: 45 minutes.

THE COURT: 45 minutes, all right. We'll resume at 1:15.

(WHEREUPON, a brief recess was taken.)

THE COURT: I apologize. You have no idea what it's like when I go back to chambers for the break. We can go to 5:30.

MR. TAMBE: Great. Thank you, your Honor.

WOMAN 1: We have (indiscernible).

THE COURT: Okay. These are all for this witness?

MR. TAMBE: Yes, your Honor and we'll use them later this afternoon as well.

THE COURT: Okay.

WOMAN 1: (indiscernible).

THE COURT: She's trailing me. She'll be here soon.

MR. TAMBE: Good afternoon. Mr. Hasterok. I believe you have testified previously that if you were valuating this contract, not from the TSA's perspective, but from a dealer's perspective, you would have used a different methodology, correct?

MR. HASTEROK: I agree.

MR. TAMBE: Okay. You would have used the methodology you routinely used at Morgan Stanley.

MR. HASTEROK: I agree.

MR. TAMBE: And that's the forward curve methodology.

MR. HASTEROK: Yes.

MR. TAMBE: If we can go back to your expert report, the original export report. Exhibit X and I believe on page four that you have a transaction grid on there. We talked a couple of times about the material terms of the

contract were there and then you said well, when you saw the material terms of the contract are in the grid, correct?

MR. HASTEROK: Yes.

MR. TAMBE: Okay and one of the material terms of the contract that is not in that grid is the language from 7.6 off the RFA which says if the TSA is doing the valuation it has to do it as if it were Lehman, correct?

MR. HASTEROK: We don't reference the "as if it were Lehman" clause here.

MR. TAMBE: Okay. And as if--"as if it were Lehman" is as if you were a dealer, correct?

MR. HASTEROK: Could you be more specific at what you mean by that? I don't understand your question.

MR. TAMBE: I know you don't reference that provision, but you understand that phrase "as if it were Lehman" to mean as if you were a dealer, correct?

MR. HASTEROK: No.

MR. TAMBE: You identified earlier that there was a mistake in the RFA and you wanted to make sure that you have the amendment agreement, correct?

MR. HASTEROK: Yes, sir.

MR. TAMBE: Okay. And no one's ever said to you that there's a mistake in the RFA in Section 7.16 in the "as if it were Lehman" language, correct?

MR. HASTEROK: Yes I have been told by TSA that

they believe that, and we went through an email yesterday if I recall, where the original draft went out and TSA's counsel made some comments to that draft and one of the comments was when we were referring to who should do the calculation, the burden party, if you remember that section, that the "as if were Lehman" section should have been removed as well.

MR. TAMBE: And you didn't note in your expert report and when you did your calculation you read 7.6, but you were disregarding that language because you believed it to be a mistake. You didn't do that, did you sir?

MR. HASTEROK: We interpreted--

MR. TAMBE: Did you do that, sir, yes or no?

MR. HASTEROK: No.

MR. TAMBE: You didn't. In fact you don't mention "as if it were Lehman" and it being a mistake anywhere in your original expert report, do you sir?

MR. HASTEROK: I don't think so.

MR. TAMBE: You said this morning before the lunch break that you had not done a deep dive into Mr. Shapiro's methodology. Is that right?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. You also testified on direct that you believed Mr. Shapiro SOC quotations. Is that right?

MR. HASTEROK: I do.

MR. TAMBE: And the entirety of your knowledge on that topic are Mr. Shapiro's spoken words, correct?

MR. HASTEROK: Correct.

MR. TAMBE: You didn't see a single email or a document showing any evidence that either Mr. Shapiro or anyone else at Schwab Financial Group had requested quotations with respect to this RFA, correct?

MR. HASTEROK: I did not.

MR. TAMBE: Now, one of the points you made on direct I believe was that there were no replacement transactions taking place in the market in 2009, right?

MR. HASTEROK: Yes.

MR. TAMBE: But I believe both you and Mr. Curry have acknowledged that indicative quotations were available in the market in 2009 for tobacco RFAs, correct?

MR. HASTEROK: It depends on what you mean by indicative, but yes.

MR. TAMBE: And your employer, your prior employer Morgan Stanley, one of the big dealers in this market was providing indicative quotes, for example, the counterparties of Lehman, in 2009, correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you'd agree with me when Morgan Stanley provided those quotes they were using a forward

curve model the way you'd always used one at Morgan Stanley, correct?

MR. HASTEROK: Probably.

MR. TAMBE: We talked about the mandatory call feature and how in your view in the transaction grid for example, it was a major, major critical element of the RFA, correct?

MR. HASTEROK: Yes.

MR. TAMBE: And we talked a little bit about how that's a risk that a dealer would have to address at the outset of a transaction, correct?

MR. HASTEROK: They should.

MR. TAMBE: And you believe that Lehman took some steps to address that risk at the outset of this transaction, correct?

MR. HASTEROK: Yes.

MR. TAMBE: If we could just put up TSA Exhibit C and I believe it should be in your binder. If it's not--

WOMAN 1: It's in the new pile.

MR. TAMBE: It's in the new pile, sorry.

WOMAN 1: At the end.

MR. HASTEROK: Is it in the binders or it free floating?

MR. TAMBE: It should be a loose leaf document--

WOMAN 1: It's a loose document.

MR. TAMBE: --at the end of the pile. It's the one pager.

MR. HASTEROK: Sorry. How about I just look at the screen?

MR. TAMBE: Yeah, do you see it on the screen?

MR. HASTEROK: I'll just look at the screen.

MR. TAMBE: And what you're looking at is Exhibit C, the TSA's Exhibit C, correct?

MR. HASTEROK: Yes.

MR. TAMBE: And that's a document you saw in discovery in this case, correct?

MR. HASTEROK: Yes.

MR. TAMBE: And you recognize that at least one of the items on that document is--relates to what we were just talking about, some steps taken by Lehman to address the mandatory cleanup call option.

MR. HASTEROK: Probably, yes.

MR. TAMBE: Probably, right? And you believe that to be the case because you've seen another document in discovery which is TSA Exhibit B and the top email on TSA Exhibit B which states in addition--the sentence that says "in addition, to mitigate the credit risk involved in the tobacco deals as well as the mandatory cleanup call, we will book a credit mitigation option saved as (indiscernible)" do you use that?

MR. HASTEROK: I do.

MR. TAMBE: And you see that as a reference to the third line item we just saw on TSA Exhibit C, correct?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. And so you recognize that that third line item has some component of it which is--which relates to mandatory cleanup calls.

MR. HASTEROK: Yes.

MR. TAMBE: Right, which you have described as a major, major critical issue.

MR. HASTEROK: Yes.

MR. TAMBE: There was one additional unrelated to the forward curve issue. There was one additional publication that you referenced in your rebuttal report on a slightly different point. I think it had to do with credit charges. It’s page 12 of Exhibit Z, TSA Exhibit Z. You have it, sir?

MR. HASTEROK: I do.

MR. TAMBE: Okay. In the middle of the page three’s a paragraph that says “in their paper valuing derivatives.” You cite to a paper from John Hull and Alan White. Do you see that?

MR. HASTEROK: I do.

MR. TAMBE: And you note that they are two noted academics, right?

MR. HASTEROK: Yes.

MR. TAMBE: And you found this paper to be, at the very least, helpful and informative to your opinions in this case, correct?

MR. HASTEROK: Yes.

MR. TAMBE: Okay. I believe we have a copy of that. 145, Exhibit 145.

MR. HASTEROK: Sir, before you begin can I make a comment? Mr. Curry wrote this particular paragraph so he's probably in a better position to discuss it than I am.

MR. TAMBE: Fair question. So, you're not the one that selected this one.

MR. HASTEROK: I did not.

MR. TAMBE: Okay. And so I should ask Mr. Curry about it.

MR. HASTEROK: He'd be in a better position to talk about it.

MR. TAMBE: Fair enough. Then I'll move on and ask Mr. Curry that question. If I could just have a moment, your Honor.

THE COURT: Yes.

MR. TAMBE: Just to end that last thought, do I gather from that answer that you are the right person to talk to about the forward curve articles?

MR. HASTEROK: Both of us.

MR. TAMBE: So I might question Mr. Curry about those as well.

MR. HASTEROK: Sure.

MR. TAMBE: He has something to do with those.

MR. HASTEROK: Sure.

MR. TAMBE: Okay great. Thank you.

MR. LAWRENCE: I just need a minute for--I don’t think I need--I’ll do--

THE COURT: You can have a minute.

MR. LAWRENCE: I just have to get the technology change.

THE COURT: Okay.

MR. LAWRENCE: Could I ask you to get out your first expert report, which I believe is Exhibit X and turn to page 21?

MR. HASTEROK: I'm there.

MR. LAWRENCE: Okay. You were asked a number of questions by Mr. Tambe about alternative investment options that were presented to the TSA. Do you recall those questions?

MR. HASTEROK: Yes.

MR. LAWRENCE: And my question is to you did you consider those alternate investment options in drafting your expert report?

MR. HASTEROK: We did.

MR. LAWRENCE: Okay and this page has a section entitled “Proposed alternative investment options.” Do you see that?

MR. HASTEROK: I do.

MR. LAWRENCE: Okay. And why is it that you did not utilize the investment options that were presented to TSA, and we don't have to go through them all again, in doing your valuation matrix?

MR. HASTEROK: Sure. We felt that although the yields presented in some of the indications or term sheets or whatever you want to call the emails that TSA received around these other options, we did not feel it was appropriate to select as an alternative investment strategy something that would be additive to TSA’s risk in excess of the types of risks that they were already subject to under the reserve fund agreement.

MR. LAWRENCE: So, explain why is a GIC more risky than the RFA was?

MR. HASTEROK: Sure. I think we spoke a little bit about a GIC this morning and, as I recall, what I described it as is a customized corporate bond and the risk you're taking there is that you've given your principle to a provider, a bank, an insurance company--whoever the GIC provider happens to be. If that GIC provider defaults not only are you potentially going to lose the time value of

money, that guaranteed interest and if you lose it when you're earning a high rate of interest and rates have fallen you can't replicate that interest anymore. You’ve lost that, but also there's a good chance you've lost your principle as well.

And we've always viewed uncollateralized GICs as a riskier product than the for-purchase agreements/RFA agreement.

MR. LAWRENCE: And when you say the principle you’re talking about the $45 million reserve fund.

MR. HASTEROK: Correct.

MR. LAWRENCE: What about collateralize GICs, what are the concerns with a collateralized GIC?

MR. HASTEROK: Well, the difference there is the structure of a collateralize GIC is you, again as an investor, give the $45 million to a provider, but the provider is then also responsible for creating an escrow account, if you will, and in that account posts a predetermined list of collateral with a market value in excess of the amount of money you gave them.

So, for example, you give them 45--you give a dealer $45 million in cash. They then have to give you, say, $46 million market value of Treasuries, agencies, things like that and those securities sit in an account. I ideally they are there to protect you as the investor if the

dealer defaults. It's similar to a repurchase agreement. They’re somewhat similar. They’re documented a little differently, but conceptually it's the same thing.

The problem with that structure, although the collateral is appealing in that you could have potential recourse to that collateral, in my experience doing these trades and being in the reinvestment market, you are unable to get a bankruptcy opinion on the collateral which is not the situation you had with the RFA. TSA was able to obtain a bankruptcy opinion about the securities that they were sold under the RFA. I believe it was Clifford Chance was the provider of the bankruptcy opinion. But there were transactions when I was bidder at Morgan Stanley where if we could not provide a bankruptcy opinion the client would not do the trade. It was that important to them to get a bankruptcy opinion.

So, we felt like the lack of a bankruptcy opinion compared to the bankruptcy opinion they did obtain during the--with the RFA was a deal breaker for considering that structure as an alternative.

MR. LAWRENCE: Are there any other indications that you saw about the importance of a bankruptcy opinion to the TSA or the TSA board in doing your report?

MR. HASTEROK: I believe the TSA itself mentioned the bankruptcy opinion explicitly in one of their board

meetings. I believe it was in '09, June of '09.

MR. LAWRENCE: Why don't you look at your report?

MR. HASTEROK: There you go. June of '09. They explicitly mentioned in the minutes that there was a bankruptcy opinion in connection with their RFA and that tells me that they valued that very, very highly and that is consistent with my experience in the market that some participants value that opinion very, very highly.

MR. LAWRENCE: Now, you had mentioned briefly, and I think you tried to talk about this when Mr. Tambe was questioning you, that the options that were presented to the TSA were only indications. What does that mean in terms of what actually--if TSA had wanted to pursue these riskier options what that would have meant?

MR. HASTEROK: In the course of doing business at a dealer level, if you're a dealer and you're on a marketing desk one of the standard responsibilities would be to provide indications to clients and saying I can do a trade, I can do a GIC, I can do a repo, I can do an FPA, here is my approximate yield and you're either telling the client directly or you're telling their advisors, in my case it was usually their advisors, you would give them indications.

That does not mean you're willing to that day immediately lock in that rate. It means it's a starting point. It's a--you start the discussion and if they think

the yield is interesting and the structure is interesting it then progresses to a full credit approval, potentially a bid, the dissemination of an RFQ--again, most of these deals were competitively bid. So, that's just the starting point. That just gets the ball rolling as to people getting interested.

MR. LAWRENCE: So does that tell you what the final rate might be that will be offered?

MR. HASTEROK: It does not.

MR. LAWRENCE: I want to show you a couple of things that Mr. Tambe showed you. One, do you recall, this is Debtor’s Exhibit 22. This is a memo from PFM November 2008.

MR. HASTEROK: Okay.

MR. LAWRENCE: Do you have that?

MR. HASTEROK: I do.

MR. LAWRENCE: And I just want to put that in context. Were the rates available in November 2008 the same as I March of 2009?

MR. HASTEROK: No, I believe rates had fallen by ’09 if I recall.

MR. LAWRENCE: So, does this tell us anything about what was available in March ’09?

MR. HASTEROK: Not to the best of my knowledge.

MR. LAWRENCE: Okay. And in fact, what was the

first fail date of delivery of the securities by Lehman?

MR. HASTEROK: December 1st, 2008.

MR. LAWRENCE: So this was before that.

MR. HASTEROK: Yes.

MR. LAWRENCE: Okay. Let me show you Exhibit 31 which I believe there's a reference to ING that he asked you about, an ING GIC.

MR. HASTEROK: Yes.

MR. LAWRENCE: Is that a collateralized or uncollateralized GIC?

MR. HASTEROK: Uncollateralized.

MR. LAWRENCE: Okay. So, I want to ask you a couple of things about--he talked a little bit about the forward curve and you had a lot of questions about a bunch of articles that you saw about the forward curve. Let's start there. And so you had mentioned articles that he provided quotes out of forward--out of the articles about whether the forward curves are good or bad predictors of future rates. Do you remember that testimony?

MR. HASTEROK: Yes.

MR. LAWRENCE: Okay. First of all, were there any articles or provisions that he showed you that suggested forward curves had relevance more than a couple of months or a quarter or several months out?

MR. HASTEROK: Not that I can recall from my

reading of those articles.

MR. LAWRENCE: And there is nothing that Mr. Tambe pointed out that said they were useful for a 23-year look, was there?

MR. HASTEROK: No.

MR. LAWRENCE: And in fact, you've read the depositions and the expert reports of Mr. Gruer and Dr. Battle, correct?

MR. HASTEROK: I have.

MR. LAWRENCE: And what is their view about whether forward curve is an accurate predictor or actual future rates?

MR. HASTEROK: I believe they also agree with us that it is not an accurate predictor.

MR. LAWRENCE: So, is there any disagreement among the experts on whether forward curves are an accurate predictor of future rates?

MR. HASTEROK: I don't think so.

MR. LAWRENCE: Now, Mr. Tambe also I think using your spreadsheet went back to 2002 and T-bill rates from 2002 and showed you how stuff had moved. How would you describe the difference in the market between 2002 at the time the TSA incepted, which goes back to that data point, and March of 2009?

MR. HASTEROK: In 2002?

MR. LAWRENCE: Compared to 2009.

MR. HASTEROK: Sure, sure. It was clearly a more vibrant market for dealers at least. We were two years removed from the dot com bubble bursting. It was a time where dealers such as Morgan Stanley could and were willing to enter into highly structured transactions like the RFA.

Compared to 2009, rates were generally far lower. There was much more risk aversion in the overall market and dealers specifically were less likely or willing to enter into structured transactions like this with clients like Washington TSA.

MR. LAWRENCE: Can you tell me whether or not one of the considerations was the changing credit risk in the market?

MR. HASTEROK: Yes.

MR. LAWRENCE: Now, Mr. Tambe asked you about whether Morgan Stanley was giving indicative quotes in 2009 on tobacco RFAs and you said that you understood they had.

MR. HASTEROK: Probably.

MR. LAWRENCE: Can you tell us what an indicative quote is and whether or not it is something that I can enter into when I get an indicative quote?

MR. HASTEROK: Sure. I've seen them done essentially three different ways and it just depends on the dealer and what they're willing to actually provide on a

given trade structure counterparty. The three common ways are fully executable actionable quotes where the dealer is willing to stand by his or her level immediately. I'm ready to trade. I’m ready to go. If you're interested in this rate or price, I will transact with you.

MR. LAWRENCE: And did Morgan Stanley provide any of those on tobacco RFAs?

MR. HASTEROK: I highly, highly, highly doubt it. I cannot confirm everything that my superior, Kevin Schwartz, did because he didn't tell me every single thing he did, but I would be very surprised to hear that we gave actionable quotes.

MR. LAWRENCE: And none were executed.

MR. HASTEROK: Not to my knowledge, no. So, that’s one. At the other end of the spectrum I've certainly seen what’s called a mid-market quote where it doesn't include credit, profit, other reserves that you might normally include in doing a new structured trade like this and the reason why you might give as a dealer just a mid-market quote is for speed. You realize that there is going to be no trade. There is not going to be an opportunity to make money so as an active participant in the otherwise vibrant market, you might decide--vibrant is the wrong word, but you might decide that it is part of your responsibility as a dealer to provide some quotes in some form.

So, depending again on the dealer and the trade you might elect I'll just give a mid-market quote non-executable, I won't stand by that trade, I won't executed it, I won't lock that rate in with a client, but at least it's something.

In the middle between those two is a quote that is mid- plus or minus a spread and hopefully that spread is generally representative of what you would have done as a dealer to actually enter into the trade, but you're also not committing to actually doing it. So, it's kind of a spectrum of different quotes--I'll put quotes around quotes--and it just depends on the trade and the dealer and what they're willing to provide.

MR. LAWRENCE: The last two are not actionable. I can't accept your quote.

MR. HASTEROK: Correct.

MR. LAWRENCE: I think another document you were asked about was Debtor's--or maybe you weren't asked about, I can't remember. But I want to show you Debtor's Exhibit 108 and particularly the second page of that. This is a UBS email. Do you see that?

MR. HASTEROK: I don't think I have--I may or may not have the paper, but I'll look at it on screen.

MR. LAWRENCE: Okay.

THE COURT: Where did you say--? I'm sorry, where

did you say this was Mr. Lawrence?

MR. LAWRENCE: It’s the second page of Debtor’s Exhibit 108 and I'm not sure that it’s in that book or not, I didn’t check.

MR. HASTEROK: I don’t see a tab for it.

MR. LAWRENCE: It’s--you can look at it on the screen. For the judge I will give her--make sure--

THE COURT: I’ll look at it on the screen.

MR. LAWRENCE: Okay.

THE COURT: That’s okay, thank you.

MR. LAWRENCE: It’s a short point I want to make.

THE COURT: Okay.

MR. LAWRENCE: There is a reference to Treasuries on December 1 of 2011. Do you see that?

MR. HASTEROK: I'm sorry, I'm reading it for the fir--right, so this is TSA’s trustee I believe, yes?

MR. LAWRENCE: Yes. The TSA’s trustee was U.S. Bank.

MR. HASTEROK: Okay. Yes, okay.

MR. LAWRENCE: And what is that telling you about Treasury rates in 2011?

MR. TAMBE: I’ll object to lack of foundation. He's never seen it before. He’s just reading from the document at this point.

THE COURT: That’s true.

MR. LAWRENCE: Based on your understanding--based on your history in the industry do you have an ability to understand what's being referenced here?

MR. TAMBE: I think it’s plain English, your Honor. I don’t think we need an expert witness to tell us that. Objection.

MR. LAWRENCE: Well, if they’re willing to stipulate that Treasuries were at .07 and agencies are--

MR. TAMBE: Then I would object to hearsay.

THE COURT: Okay.

MR. LAWRENCE: --I’d be happy--

MR. TAMBE: And I have an objection to hearsay because now you’re trying to bring it into the truth of the matter.

THE COURT: There is no way for this witness to give an opinion on whether what’s on this page is accurate and correct or not.

MR. LAWRENCE: Let me just ask a different way.

THE COURT: Okay.

MR. LAWRENCE: Do you have an understanding of what T-bill rates were in 2011?

MR. HASTEROK: Not exactly, but generally very low.

MR. LAWRENCE: Okay. So, you were asked about the “as if it were Lehman” language in the RFA and what you

weren't given an opportunity to do is explain what you unders-- how you interpreted that language and why it wasn't critical in terms of your analysis. Could you do that for us?

MR. HASTEROK: Sure. We certainly saw it and contemplated how we should use that in our valuation and the way we interpreted that phrase is that upon Lehman's failure to provide quotes then it was incumbent upon TSA to go out and attempt to run a quote process itself. We did not view that phrase to mean that suddenly Lehman is now the burdened party. We always believed that TSA was always the burdened party and that that phrase was merely procedural and required TSA to then take the step that Lehman failed to do, which is obtaining quotes.

MR. LAWRENCE: And in the definition of termination amount in the RFA that you referenced in your report and relied upon, is there any reference to the "as if it were Lehman" language?

MR. HASTEROK: I don't think so.

MR. LAWRENCE: That's all, your Honor.

THE COURT: Okay. Mr. Tambe, anything more?

MR. TAMBE: If I can just have a moment.

THE COURT: Sure.

MR. TAMBE: No further questions, your Honor.

THE COURT: All right, thank you. Thank you Mr.

Hasterok, you are finished.

MR. HASTEROK: Thank you, your Honor.

THE COURT: Thank you very much.

MR. LAWRENCE: He can talk to us now, right?

THE COURT: He can talk to you again, yes.

MR. LAWRENCE: I'm going to call Dan Curry next.

THE COURT: Thank you for cleaning up after yourself or whoever else was there before you. Hello Mr. Curry.

MR. CURRY: Hello.

THE COURT: Would you raise your right hand please? Do you solemnly swear or affirm that all the testimony you're about to give before the Court shall be the truth, the whole truth and nothing but the truth?

MR. CURRY: I do, your Honor.

THE COURT: Please have a seat. Let us know if you'd like to take a break or if you need anything.

MR. LAWRENCE: Mr. Curry, can you tell us first about your education?

MR. CURRY: I graduated in 1990 from the State University of New York at Albany with a bachelor of arts in economics and a minor in business.

MR. LAWRENCE: And tell us your employment history as it's related to the financial services industry.

MR. CURRY: Right after college I very, very

briefly worked as National Westminster Bank then I left there and became an analyst at Bear Stearns in New York in their public finance department. So, basically I was structuring bond deals for municipalities, reading bond documents, creating presentations, dealing with the issuer client base. I did that for about two and a quarter, two and a half years and then I moved down to Baltimore where I worked at Alex Brown & Sons in the public finance department structuring bond deals for municipalities, non-profits, stadium authorities, the typical gamut of municipal issuers. I was engaged in certain derivative structuring, so structuring swaps for municipal clients. I did some reinvestment work so reading reinvestment contracts for our municipal client base and our non-profit client base. I was engaging in forward purchase contracts, reading documents, helping structure transactions on behalf of the issuers and I think I did that for about 18 months to a little under two years.

Then I moved to Greenwich, Connecticut, where I worked at a place called TMG Financial Products which was a derivatives structuring company. We were a principle swap counterparty. We provided forward purchase agreements, investment agreements, interest rate swaps. We did some bond trading and some bond investing and I was there, I don’t know, two and a half, three and a half years. When

that firm close down I was part of the wind down committee. We transferred a lot of the financial assets over to JPMorgan.

After the firm closed down I did some volunteer work at the American Red Cross in New York. I was basically a consultant there helping on a reengineering task force. And then in 1998 I joined Morgan Stanley back again in the public finance department, so the banking side dealing with the issuers. So, again I was structuring transactions, doing refunding analysis, creating presentations, that type of thing.

After doing that for about a year, perhaps a little over year, I moved back out to the trading desk where I basically had a trading responsibility in the tender option bond desk which morphed into more of a general capital markets structuring job which I was part of the municipal derivatives group where I was doing some bond investments, some lending transactions, working on some of the interest rate swap book, working on a lot of the products that existed in the municipal capital market space. So, whereas Jeffrey may have been a marketing person talking to clients, I was basically one step removed from that and I was helping to deal with transactions that were in-house that may have had problems or may have required kind of a different way of viewing something. So, that was part of

what I worked on and then I was also new product development, which is creating products where we could kind of bring the services of the firm out to clients. So I would create something and then Jeffrey and people like Jeffrey would be on the marketing effort.

So, that was kind of my work prior to the financial crisis. After the financial crisis I was still a member of the municipal capital markets group, but I was doing a lot of workout transactions on deals that had defaulted or had otherwise been troubled as a result of the financial crisis.

MR. LAWRENCE: I think Mr. Hasterok indicated at some point both of you were subject to a riff at Morgan Stanley. What had been doing since?

MR. CURRY: I've been doing some consulting work and some basically family projects.

MR. LAWRENCE: Did you have any prior relationship to the Washington TSA or any related entity before you were asked to engage in this expert report?

MR. CURRY: I did not.

MR. LAWRENCE: I don’t want to go over things that we already went over with Mr. Hasterok. Is there anything you heard from Mr. Hasterok that needs correcting?

MR. CURRY: Not that I'm aware of.

MR. LAWRENCE: And you adopt the report as if it’s

your own and is--?

MR. CURRY: I do.

MR. LAWRENCE: Okay. One of the questions that I think Mr. Hasterok said that you were more focused on was the question about the time period that the bonds would be repaid. That is whether the turbos would kick in and would go out to term in 2032. Could you tell us what information that was available as of March 2009 that impacted your opinion that the bond would tend to go out to 2032?

MR. CURRY: well, let me just take a step back one some of my experience.

MR. LAWRENCE: Sure.

MR. CURRY: When I first joined Morgan Stanley in ‘98 when I was on the banking side that was around the time where the MSA settlement occurred. So, we had put together several working groups to basically put together proposals for financing similar to what the TSA did. So, I was part of the group that was sitting there analyzing the MSA, getting an understanding as to how it worked so that bond issues could be structured based off of the income stream. Based on work that I had done back then as part of my role in managing bond portfolios occasionally I was the proud owner of tobacco bonds. I was doing total return swaps on tobacco bonds so I became very familiar with what the then current projections were and some of the things that

potentially could interrupt MSA settlements, some of the things that actually did interrupt MSA settlements.

So, as a result of doing some of that work as part of the muni capital markets group we were basically affiliated with or sat next to some of the muni sales area so there were credit analysts, sell side credit analyst who were basically writing reports, those types of things for investors and I was quite often conferencing with them, giving my input, listening to them as to all of the goings on in the tobacco market.

MR. LAWRENCE: Were there certain events that happened in early 2009 that also potentially impacted the stream of master settlement agreement payments?

MR. CURRY: I think the big one in early 2009 was the enactment of the, I forget the term, it’s the State Children's Health Plan which was an increase in the tax on a pack of cigarettes and if I recall the tax went from, it was either $0.34 or $0.39 up $1.01 per pack. So, that was something that the market was aware of that was happening because the legislation was out there and investors were starting to factor in the potential decrease in demand that that might have on the MSA. So, people were saying okay, well here's this new tax which increases everybody's price and that's something that potentially could shock the system and basically it's one of the potential causes for you as an

investor in the bond to kind of question when you're maturity might be which in turn makes it a little bit harder to price your deal because you don’t know--

THE COURT: Can I ask you to connect the dots? The price of cigarettes goes up.

MR. CURRY: The price of cigarettes go--

THE COURT: People smoke less.

MR. CURRY: Yup.

THE COURT: Therefore--

MR. CURRY: MSA payments--

THE COURT: MSA payments--

MR. CURRY: --slow down.

THE COURT: --slow down.

MR. CURRY: Yup.

THE COURT: Therefore more of a delta and a risk of non-payment of the bonds.

MR. CURRY: Depending on the structure, yes.

THE COURT: Okay.

MR. LAWRENCE: And in fact if you look at Exhibit X, your report, this is discussed page 11 of your report, correct?

MR. CURRY: Yes.

MR. LAWRENCE: Okay. So, one of the things that was raised, I think by your honor and by Mr. Tambe, is questioning the period of time that you utilized to

determine yield for your termination amount calculation.

MR. CURRY: Mm hmm.

MR. LAWRENCE: So, let me ask you from your perspective, why didn't you use a broader range of historical averages rather than simply the four-month window?

MR. CURRY: Well, if you were to go and look at a longer period of time, keep in mind interest rates were higher during that longer look back period, the longer you look back, the higher the interest were if I recall correctly and now you're kind of starting at a very, very low base. So, to put it in the most simple terms when rates were--when they initially had the rejection they were reinvested at--I'll do it even more simply. Let's just say that the rate was zero and it was a two period observation. In order to get back to the average in the second period rates would have to be that much above the average in order to get back to the average. So rates would have to be extraordinarily high to even can get back to the average and the further and further you went on the look back periods the higher and higher or the greater you would need to increase in order to even get to that average. So, they were kind of preposterous interest rate assumptions.

MR. LAWRENCE: So one of the things that Mr. Tambe did with Mr. Hasterok is he looked over a longer average and

said look, T-bills were historically 4.66 percent, why didn't you use that? So, how does that--if you had used that 4.66 percent given where rates were in March 2009 what would rates have to have done to approach that yield over the term of the contract?

MR. CURRY: Be very, very, very much higher than 4.25 percent. I mean, you're starting basically at a base of zero to average. You're starting at a base of near zero. To get to the average rates have to rise extraordinarily high to even approach the average. So, you'd need to make up all the money that you've lost before you can even average the 4.25 percent.

MR. LAWRENCE: So, you've got to make up the difference between 4.66 and whatever the rates were through June of 2013.

MR. CURRY: Correct.

MR. LAWRENCE: And then it's going to be some number in excess of that largely.

MR. CURRY: That's correct.

MR. LAWRENCE: Now there were a number of questions that Mr. Tambe had about alternative investments proposed to the Tobacco Settlement Authority that did not analyze in your valuation matrix. Could you explain to us why you didn't analyze those in the valuation matrix?

MR. CURRY: Well, some of the investments, such as

an investment agreement, presented a lot more risk to the TSA than the RFA. For example, I think Jeffrey described it as a customized bond. So, you have the risk of when that defaults that you lose a percentage of your principle and I believe the principle would be the only claim in the event of a bankruptcy. You wouldn't have any claim related to the lost interest earnings on that particular bond.

So, your risk there isn’t just losing your principle, your risk is losing your interest rate for your structured coupon, if you will, which would be a larger claim and much, much more risk than the TSA has in their existing or their then existing RFA.

MR. LAWRENCE: Okay, if could look to Exhibit X and the valuation matrix there are a number of different investments that you actually looked at. How do the risks involved in those investments compare to the risk that the TSA faced in the RFA?

MR. CURRY: They’re substantially similar.

MR. LAWRENCE: And were any of the other alternative investments that you’ve seen documents about, were any of those substantially similar to the risks that the RFA provided to TSA?

MR. CURRY: No.

MR. LAWRENCE: We’re going to move to Exhibit Z, which is your rebuttal report. Now, one of the things--did

you consider in your reports this "standard methodology for valuation" that Mr. Gruer uses?

MR. CURRY: I do not believe there is as standard explain methodology.

MR. LAWRENCE: Explain why you do not believe that there is a standard methodology as described by Mr. Gruer.

MR. CURRY: I think that every trading desk or ever dealer has a different risk appetite and how every--and each dealer may hedge something differently or take a different view, particularly as it relates to MSA or tobacco type transactions. And I think you can demonstrate that by going and looking at the bidding results.

MR. LAWRENCE: So, let's do that. This is page seven of the rebuttal report and there is a box up there that--what does that show?

MR. CURRY: That shows the bids that the TSA took or the TSA's advisor took on October 24th when it bid out the actual contract.

MR. LAWRENCE: So, what do those bids tell you about whether or not there is a standard methodology used by all dealers?

MR. CURRY: Well, looking at the pricing there is pretty substantial differences in the pricing of the transaction or the yield that they would offer and I believe that, you know, my belief is that that is reflective of

their view, their tweaks to the model, their own risk appetite and just the fact that there is not a standard way of looking at this. I mean, all of this I think is reflective of different--

MR. LAWRENCE: You have a question I can tell.

THE COURT: Well, could I ask you a question about that?

MR. CURRY: Sure.

THE COURT: So, I always hear about proprietary models, right, and all the banks and all the trading desks they have proprietary models and they never want to reveal what in them. Right?

MR. CURRY: Mm hmm.

THE COURT: But what counsel asked you was about a methodology.

MR. CURRY: Mm hmm.

THE COURT: Right? And you responded by saying, you know, everybody’s got different tweaks. So, I'm looking at these quotes and completely simplistically I'm looking at the market, right, and from the top to the bottom, and my recollection of the full grid of this from the exhibit that I saw earlier, was that on some of these there were conditions and there were other things.

MR. CURRY: Right and the only thing I just want to point out is that there were--the TSA, and we haven’t

gone into detail because it’s kind of irrelevant, asked for two different bids. It’s the par bid that they actually ended up with.

THE COURT: Right. Thank you so much. So, for my purposes then I think you want to look at the top three lines which is Lehman, HypoVereinsbank and Bear Stearns, right? So, some of the tweaks might have to do with the nature of the dealer, the size of the dealer, etcetera. I guess my question is I'm focusing on counsel’s question about there's no standard methodology versus somebody might, based on who they are as a dealer or other things that we don't know about their proprietary model, tweaked the inputs a little so that here on the top three, which is the only three that I'm asking you about, the variation is .16. That’s the variation and you’re saying that who knows, they might have completely different methodologies as opposed to a tweak here, a tweak there. It’s a question. I mean you’re--

MR. CURRY: I would say the view--when you're doing something like that the difference in the rate is, in this case because they have the market rate versus the par rate, is how you value that particular optionality.

THE COURT: Right.

MR. CURRY: I don't know that there's any particular methodology for that view.

THE COURT: Right, so the difference in the market might be, as we've discussed for several hours now, different credit risk that gets built in, right?

MR. CURRY: It would be your view of the credit which is basically--

THE COURT: Exactly. Okay.

MR. CURRY: --talks to your methodology for viewing that particular--

THE COURT: Right. But what I'm trying to focus on is when you're sitting at your desk and you know that there are competitive bids out there, are you thinking that the guy down the street, HypoVereinsbank, is using a completely different methodology than you are to respond to the bid?

MR. CURRY: In the case of the par break I am. I'm thinking that they used very, very different option pricing or option strikes or had a very different view as to when or how to trade could come down. That would explain my pricing or Morgan Stanley's pricing relative to the other people because we would sit there and we would say where is the mid-market swap on this trade because we would feel that everybody might use that methodology as the starting point. And then you would start to back off where people--where you thought credit would be or what you assessed your charge to be. And then this--

THE COURT: So the methodologies are similar in so far as perhaps everyone's using for where the break is.

MR. CURRY: I'm sorry?

THE COURT: You just referenced where the break is, right?

MR. CURRY I think everybody would have started at the interest rate swap. Different people would have different views or different methodologies--

THE COURT: Okay.

MR. CURRY: --for things like credit, things like the optionality, things--basically the things that make this a non-vanilla product.

THE COURT: Sure, okay.

MR. CURRY: So, I think you started off with a vanilla product, I don't think you would--

THE COURT: As opposed to what we were talking about this morning with the T-bills.

MR. CURRY: Correct.

THE COURT: Okay. Thank you. I'm sorry, Mr. Lawrence.

MR. LAWRENCE: No, I think you actually covered what I wanted to cover so thank you.

One of the other things that you address is whether or not it's appropriate, you understand That Mr. Gruer used an agency curve to calculate the termination

amount on a mid-market basis, correct?

MR. CURRY: Correct.

MR. LAWRENCE: Why was it not appropriate to use an agency curve?

MR. CURRY: It looked like he took a cash bond curve, so just observations of cash bonds, and used that as some way of predicting where short-term bonds might price in the future. To my knowledge none of the levels were anything you could do to hedge yourself to lock in that rate as a receivable rate is available in the market. It doesn't trade.

So, you could go and you could buy the bond, a 20-year bond or a 30-year bond or whatever it was that’s in that curve, but there's no derivative transaction, there's no--any type of transaction that would allow you to receive that rate for paying some sort of floating rate. So, it's not anything that references any type of hedge that I know of.

MR. LAWRENCE: So, for example you were here when we’ve talked about the hedges that Lehman put on the original TSA transaction, which were CP hedges or LIBOR hedges. Is there a hedge market for agencies?

MR. CURRY: Not that I am aware of.

MR. LAWRENCE: So, what do I have to do if I'm TSA and I am trying to capture the market perception of agencies

over the course of the next 23 years that are going to be delivered every six months? What do I have to do as TSA in order to take advantage of that market perception as of March 25, 2009?

MR. CURRY: You would have literally needed to buy every single one of the agencies six months prior to--you'd have to buy them now. So, if you had an agency that matured on December 1st, to meet your bond payment date you'd have to buy that agency today. Your next bond payment date would have been June 1 the following year. You would need to buy that agency today and so on, so on, so on. It works out to about $2 billion of agencies and then you need to finance it. You need to find the way to borrow the money to buy it until you can deliver it. So, it's not a--from a practical standpoint it's just not a possibility.

I don't know anybody who has done that with their FPA book. I don't know anybody who would hedge their FPA book that way. But that's the only way that I can see to try to capture those yields.

MR. LAWRENCE: And based on your understanding of TSA could they have bought out, what are there, 46 or some odd agencies at $45 billion each over that 23-year period?

MR. CURRY: I don't believe so, no.

MR. LAWRENCE: Now, you had another problem with the agency curve in terms of the spread to LIBOR that Mr.

Gruer used. Can you tell us about that?

MR. CURRY: Again, I think what they were doing or what he was doing was looking at long dated agency securities compared to the swap curve and implying that spread particularly in the long end back over to the short end and I think if you were to go and look at actual agencies, and I think we have it in our--yeah, there we go.

MR. LAWRENCE: This is on page 25 of Exhibit Z.

MR. CURRY: So, this is comparing six month agencies to six month LIBOR. I don't believe six month agencies for any period of time or perhaps not ever have ever exceeded six month LIBOR. So, to say that looking forward 20, 30 years that you're going to expect to receive a massively positive spread to LIBOR by doing an agency trade isn't really supported by where the current deliverables are.

MR. LAWRENCE: So, when you looked at this period from ’02 to August ’13, it in terms of plus or minus where are six month agencies trading compared to six month LIBOR?

MR. CURRY: For what period of time?

MR. LAWRENCE: Just during that entire period. Was there ever a plus or there’s always a minus?

MR. CURRY: It looks like it's always a minus.

MR. LAWRENCE: Okay. And what did Mr. Gruer use in his calculation in terms of the spread between agencies

and LIBOR?

MR. CURRY: I don't recall offhand, but it was very high.

MR. LAWRENCE: You recall it was a plus.

MR. CURRY: It was a plus.

MR. LAWRENCE: Okay. You also had a concern about Mr. Gruer’s credit charge. You saw that he tried to replicate a credit charge when he backed off his original calculation and came up with an alternative, correct?

MR. CURRY: Correct.

MR. LAWRENCE: Could you tell us what the problems are with his credit charge?

MR. CURRY: I believe what he did was he looked at bond spreads to impute or calculate a credit charge. So, if I remember from his model, you know, one of the assumptions that you have in trying to--I believe the model he used was what we would call a CVA pricer. I believe what he did is he assumed that there would be some recovery in the event of a default. So, he used bond spreads to basically calculate default probabilities and then you have to assume some sort of recovery in order to come up with a value.

MR. LAWRENCE: So, explain what you mean in terms of recovery. What are you talking about?

MR. CURRY: If somebody goes bankrupt they get a recovery. You have the judge here who says you get X.

THE COURT: Is that how it works?

[LAUGHTER]

MR. CURRY: It’s assumed in the market. So, there is an assumption that if something goes bankrupt you’re not going to get zero dollars, you’re going to get something. And that recovery is priced into what we would call a loss given default. In the case of a derivative that you would use to hedge a contract like this, first of all, it's basically subordinate. The swap or your hedge or however you want to think about it can default or be drawn upon without the bonds defaulting.

So, the default on the bonds isn’t necessarily your trigger. So, looking at the bond credit spread may give you some comfort or give you a starting point. You’re effectively subordinate to that bond so you should have a wider credit spread.

The other thing is because this is a derivative and it's subordinate to the bonds, you would expect the recovery to be zero. So, if you were looking at--let’s say that you assumed that 50 percent loss given default and you had a credit charge of X, if you’re assuming zero recovery your credit charge should be 2X or 3X or whatever that denominator is.

MR. LAWRENCE: If you look at page 29 of your rebuttal report, this is where you discuss that, correct?

MR. CURRY: Mm hmm.

MR. LAWRENCE: And what did Mr. Gruer use for a recovery rate?

MR. CURRY: In his deposition he indicated 60 or 70.

MR. LAWRENCE: And what should he have used?

MR. CURRY: Zero.

MR. LAWRENCE: Okay. One thing that Mr. Tambe pointed out in terms of historical data that he did with Mr. Hasterok was the use of a certain Bloomberg index. And I simply want to ask whether or not you know whether or not that index includes some securities that were not eligible under the indenture or not.

MR. CURRY: You're talking about the CP index.

MR. LAWRENCE: Yes. We have no way of knowing. The CP that TSA was allowed to buy was only A1+ P1CP. There were further restrictions such that if--

MR. TAMBE: I'm sorry, just to interrupt. I didn't ask anyone about the CP index. If you want to talk about the CP index I'm fine with it. The record is a little unclear.

MR. LAWRENCE: I will rephrase the question.

THE COURT: Okay.

MR. TAMBE: I asked about a T-bill index, not a CP index. But he's welcome to talk about the CP index.

THE COURT: Okay.

MR. LAWRENCE: What is the problem with using indexes and use the CP index as an example?

MR. CURRY: You don't know what exactly is in the index or if something actually trades the size. There are all sorts of things that can distort the index.

MR. LAWRENCE: So, using the CP index can you tell whether or not that index includes commercial paper that doesn't meet the high-quality requirements of the indenture?

MR. CURRY: You cannot.

MR. LAWRENCE: And so if it concludes that lower quality COUNTERPARTY, what would that do to the index compared to what CP TSA could actually trade in?

MR. CURRY: I expect it would have inflated it.

MR. LAWRENCE: I have nothing further.

THE COURT: Okay, thank you. Do you need a few moments?

MR. TAMBE: That would be helpful, your Honor.

THE COURT: Okay. Why don't we take a five to 10 minute break? You will remain under oath. Please do not talk to anyone about your testimony or be in anyone's presence while they're discussing your testimony or the case. Thank you. Alrighty.

MR. TAMBE: Good afternoon, Mr. Curry. There was no particular analysis that either you or Mr. Hasterok did

to reach your conclusion that short-term interest rates would remain unchanged for up to 23 years, correct?

MR. CURRY: No.

MR. TAMBE: No, you did no such analysis?

MR. CURRY: We didn't do that analysis.

MR. TAMBE: In all your years at Morgan Stanley you never bid for any kind of forward purchase agreement using the type of methodology you've used here in this Court, correct?

MR. CURRY: No.

MR. TAMBE: Yes?

MR. CURRY: We've never--I never used that methodology.

MR. TAMBE: Can you pull your microphone a little bit closer? Thank you. And when Morgan Stanley marked its books and valued it's billions of dollars of positions it didn't use the methodology you're using in this courtroom today, did it?

MR. CURRY: That is correct because Morgan Stanley had hedges that they needed to value.

MR. TAMBE: And Morgan Stanley's methodology would have been subject to internal product control review, price control review.

MR. CURRY: That is correct.

MR. TAMBE: That's an independent group away from

the traders that looks at the way positions are being marked and booked and says that’s the right way of doing it, correct?

MR. CURRY: The creato--sorry, the traders would go and create a model usually in consultation with--we had strategists and then there would be a group, a product control group that would validate the model.

MR. TAMBE: Right. And then that rolls up to the financial department. It rolls up to SEC filings, regulatory reports and all that stuff, right?

MR. CURRY: Correct.

MR. TAMBE: And your general sense is while there may be differences from dealer to dealer, that's the way the regulators look at the marking, the booking, the trading of these kinds of products, correct?

MR. CURRY: That is correct. It’s also the way that the accounting regime makes you mark things.

MR. TAMBE: And it’s the accounting regime that makes you decide was is fair value and what’s not fair value, correct?

MR. CURRY: Correct. The accounting regime gives you the ability to go and mark assets that don’t trade.

MR. TAMBE: I'm sorry, I missed that part. Mark assets that don’t trade.

MR. CURRY: Correct.

MR. TAMBE: Okay. So kind of like our phase one trading the accounting literature gives you an ability to go and put a value on it for financial accounting purposes.

MR. CURRY: That’s correct.

MR. TAMBE: So you’re not misleading investors, the investing public, right?

MR. CURRY: It gives you a model to go and put a value on something.

MR. TAMBE: Well, it’s not just putting a value on something, right? It’s putting an accurate value from an accounting perspective of what that transaction is worth, correct? There are rules.

MR. CURRY: There are rules.

MR. TAMBE: Right.

MR. CURRY: It doesn't say that that was necessarily the market value of the transaction.

MR. TAMBE: We’ll come to that in a minute.

MR. CURRY: Okay.

MR. TAMBE: And the rules that are followed, the accounting rules that are followed ends up in public accounting for the dealers, correct?

MR. CURRY: That is correct.

MR. TAMBE: And it’s not just the investing public that’s relying on it. Pension funds rely on it, correct?

MR. CURRY: Absolutely.

MR. TAMBE: Investors like the State of Washington probably rely on those.

MR. CURRY: That is correct.

MR. TAMBE: Okay. And those are the rules that you've set aside for purposes of a valuation in this case, correct?

MR. CURRY: We did not think they applied. We did not think they applied.

MR. TAMBE: Just some other basics. We're all agreed that the TSA following Lehman's default had the $45.5 million in its control, correct?

MR. CURRY: Yes.

MR. TAMBE: It's with the trustee, but it's in its control.

MR. CURRY: That is my understanding.

MR. TAMBE: And the TSA can direct the trustee to invest that in eligible investments, correct?

MR. CURRY: I believe that to be so.

MR. TAMBE: And the eligible investments that I'm talking about is a definition that appears in the bond indenture, correct?

MR. CURRY: Correct.

MR. TAMBE: That's the rule that now applies now that the RFA has gone away.

MR. CURRY: That is correct.

MR. TAMBE: Okay. And the restrictions that are on the indenture, the bond indenture, are to make sure that there is a reserve fund that's been set up and the monies that are collected from the issuance of the bonds are invested properly securely, correct?

MR. CURRY: It gives you a framework for investing, correct.

MR. TAMBE: And that's a framework that was setup when the bonds were issued, correct?

MR. CURRY: That is correct.

MR. TAMBE: And there is a certain risk appetite that is described or defined by those options, correct?

MR. CURRY: That was the risk appetite when the bonds were structured.

MR. TAMBE: So that's hard wired into the indenture from day one, correct?

MR. CURRY: It gives you a risk limit as of the day the bonds were structured.

MR. TAMBE: And the GICs we've been talking about on and off, I think you saw Mr. Cook testify yesterday, that falls within those risk limits from day one of the bonds, correct?

MR. CURRY: Correct.

MR. TAMBE: In terms of collateralized versus non-collateralized products, one of the risks that the

Washington TSA assumed in the RFA was that Lehman could select from a menu of eligible securities, correct?

MR. CURRY: Correct.

MR. TAMBE: And you agree that Lehman have the absolute discretion to pick the cheapest to deliver, correct?

MR. CURRY: Within the confines of the agreement, correct.

MR. TAMBE: That’s right. Within that set of rules--

MR. CURRY: Correct.

MR. TAMBE: --got to pick the cheapest to deliver and you would assume a dealer acting rationally would provide the one that was the easiest to deliver or the cheapest to deliver. They got to make that choice, correct?

MR. CURRY: They got to make that choice. I don't believe they exercised it.

MR. TAMBE: But there was nothing that stopped them from exercising it, right?

MR. CURRY: There was nothing that stopped them from exercising it.

MR. TAMBE: So, they had set up a hedge which allowed them to deliver commercial paper if that’s what they delivered, correct?

MR. CURRY: Correct, but the setting up the hedge

created some other issues if they were to try to exercise the cheapest delivery option because now they had to dispose of that paper that they were committed to take from Briarwood.

MR. TAMBE: Right. So they have to sell some paper in the open market and deliver something cheaper to the TSA.

MR. CURRY: Correct, so it's not as simple as selecting the cheapest to deliver. You have to select the cheapest to deliver and sell the other paper.

MR. TAMBE: Let's just talk about what's simple and what's not. That's not a complex transaction for a dealer, right? You buy and sell paper all day.

MR. CURRY: It depends on the market conditions.

MR. TAMBE: Just so we're agreed, there's nothing that prevented Lehman from delivering agencies even though it had this commercial paper program, correct?

MR. CURRY: There is nothing that prohibited it.

MR. TAMBE: Now, Lehman could have delivered other commercial paper, correct?

MR. CURRY: They could--

MR. TAMBE: Not just the Briarwood paper.

MR. CURRY: Yes.

MR. TAMBE: And you know in the lead up to the financial crisis there were lots of highly rated commercial

paper conduits. You know that.

MR. CURRY: Yes.

MR. TAMBE: And sometimes they're referred to SIVs.

MR. CURRY: Correct.

MR. TAMBE: I'll have a sip of water. Are you okay with water?

MR. CURRY: I'm good. Thank you.

MR. TAMBE: And they were all highly rated until one day they weren't. Right?

MR. CURRY: Correct, but the thing with SIVs is--

MR. TAMBE: They were all highly rated until one day they weren't.

MR. CURRY: They were all highly short-term rated.

MR. TAMBE: Yeah. And they provided the types of short-term paper, for example, that Lehman could have delivered to the TSA.

MR. CURRY: Corre--

MR. TAMBE: Right?

MR. CURRY: I don't know that because I believe there was a long dated rating restriction and some other restrictions on the paper, the CP that Lehman could take that was additive to the rating. I'm sorry, that TSA could--

MR. TAMBE: We're not going to go into specifics

with any particular rating. That's broad strokes about the market. There's a big commercial paper market out there pre- crisis. There are all sorts of special purpose vehicles that are generating and delivering commercial paper to meet contracts like this one, correct?

MR. CURRY: Correct.

MR. TAMBE: And one of the risks that someone like the TSA ran is you don't have a choice, you've got to accept this paper, correct? If it's delivered by Lehman you've got to accept it.

MR. CURRY: It would have to be A1+ P1 and P1 paper. So you need two rating agencies.

MR. TAMBE: So, rating is fine in September of 2008. The paper matures in December of 2008. A lot of stuff happened in that fourth quarter of 2008. There is a default on the commercial paper. That's the TSA's risk, correct?

MR. CURRY: Correct and to my knowledge there's only been one issue where a piece of A1+ P1 CP has actually defaulted within six months of issuance.

MR. TAMBE: Well, it didn't have to be new issuance, did it, sir? It would have to be paper that was maturing on the next delivery date, correct? That's what the RFA requires, right sir?

MR. CURRY: It has to--correct. It would have to

have, I believe, I'd have to go back to the contract.

MR. TAMBE: Okay, so you don't know without looking at the contract.

MR. CURRY: Without looking at the contract I believe they talked about 180 days from issuance. I don't know that you could have done something longer and delivered it in when it was in 180 days. I don't know that detail.

MR. TAMBE: Putting that detail aside, if such a commercial paper issuer were to default, the risk of that default lay with the TSA.

MR. CURRY: It did.

MR. TAMBE: So, although it was getting securities as collateral, and there is some confusion about the word collateral, those securities could default and the TSA would be left with that risk.

MR. CURRY: That's correct.

MR. TAMBE: All right. Other background. We've talked about the $45.5 million being with the TSA. They can every six months go and buy the highest yielding eligible securities, correct?

MR. CURRY: They could.

MR. TAMBE: And we know from the other discussions we've had they can buy longer dated eligible investments that give them a higher yield and even eligible securities, correct?

MR. CURRY: With certain caveats, yes.

MR. TAMBE: With certain caveats as provided for in the bond indenture.

MR. CURRY: Correct. So, if they were to go and buy longer dated instruments and they were to decline in value they would have to, I believe, put additional money into the reserve fund so that the money--the reserve fund was fully funded.

MR. TAMBE: Okay. But they could do that under the bond indenture, the rules pursuant to the bond issuance, correct?

MR. CURRY: Correct. But that would also require them to take money that they would have used for turbo payments to put into the reserve fund if there's changes to market valuations.

MR. TAMBE: But all of the upheaval following the Lehman default they still were able to refinance the old bonds, correct?

MR. CURRY: In 2013.

MR. TAMBE: In 2013 they did it, right? With all the pain and anguish that Lehman has caused them they were able to do that and get a saving of what, $60 million?

MR. CURRY: I think so. Interest rates have--long interest rates have dropped precipitously all over, correct.

THE COURT: Mr. Tambe, could I just interrupt to ask one question?

MR. TAMBE: Sure.

THE COURT: Does the indenture or anything else that you're aware of with respect to the reserve fund require that all $45 million be invested at once? Can Washington TSA say it wants to do something with $5 million different from the money market account that it's currently invested in now?

MR. CURRY: I believe that to be the case, but I have not--I would have to go through the indenture to confirm that.

THE COURT: Okay. Thank you.

MR. CURRY: But I believe that--that's a very common practice that you would--

THE COURT: I mean as long as it's eligible securities, but they could invest. They could take a lesser amount than the full notional amount.

MR. CURRY: I don't believe they have to invest, I'm fairly certainly they don't have to invest everything in one individual--

THE COURT: Swoop.

MR. CURRY: Yes.

THE COURT: Okay, thank you.

MR. TAMBE: And you agree with Mr. Hasterok, if

you were doing this from a dealer’s perspective you’d do it the way you did it at Morgan Stanley with the forward curve, correct?

MR. CURRY: If I were a dealer I’d be pricing my liabilities and my hedges using forward curves.

MR. TAMBE: Yeah. The way you did it at Morgan Stanley all those years.

MR. CURRY: Correct.

MR. TAMBE: Okay. Let’s talk about credit risk. One of the points you discussed with Mr. Lawrence was Mr. Gruer assumes a recovery rate when you think the recovery rate should be zero. Remember that?

MR. CURRY: Yes.

MR. TAMBE: You understand what Mr. Gruer is applying his math to is the exposure under the agreement, correct?

MR. CURRY: Correct based on whatever curve he created, yes.

MR. TAMBE: Right, so he has a floating curve that he uses. He compares that to the fixed leg. He looks at what the exposure is going to be. Is the TSA going to be in the money or is the dealer going to be in the money and then applies his credit analysis to that exposure, correct?

MR. CURRY: I believe fundamentally that is what he does. I don't know, because he created this other curve,

how the exposures are created.

MR. TAMBE: But putting aside the curve, I mean, I know there can be disagreement about what's the right curve--agencies, commercial paper, LIBOR, something else.

MR. CURRY: But I think that actually affects the part of it--I believe that partially affects the credit valuation, the use of a specific curve.

MR. TAMBE: I have no quarrel with you that that can affect the overall credit valuation. What I'm starting to ask you--what to ask you is before you make a credit adjustment or part of the making the credit adjustment you’re not looking just at default risk, you’re also looking at, well, if there is a default what am I going to lose, right?

MR. CURRY: Correct.

MR. TAMBE: And that’s exposure, correct?

MR. CURRY: Correct.

MR. TAMBE: And when you talked about exposure in all those years at Morgan Stanley you were talking about a marked to market valuation, correct?

MR. CURRY: Correct.

MR. TAMBE: And in fact the CVA model, I think you said CVA model at some point, there is in fact a CVA model in Bloomberg, correct?

MR. CURRY: I have not used it in quite some time,

but yes.

MR. TAMBE: And one of things that model does is it looks at exposure as part of computing a credit spread, correct?

MR. CURRY: A credit spread? No.

MR. TAMBE: The credit charge.

MR. CURRY: Credit charge, yes.

MR. TAMBE: The bottom line number that a dealer may add or subtract. It’s giving you the answer to the credit risk issue, correct?

MR. CURRY: The model gives you a credit charge, correct.

MR. TAMBE: And the way it does that is it doesn't just look at a snapshot of what the exposure is based on today's marks, it does, what I’ve been told is, a Monte Carlo analysis. Are you familiar with that?

MR. CURRY: Yes.

MR. TAMBE: And so that’s multiple paths. Well, interest rates could go up what would happen, if interest rates went down what would happen, it assigns probabilities to all those future paths and says okay, this is what our exposure could be and if we're exposed and there’s a default then this is the charge, correct?

MR. CURRY: It calculates your exposure on a going forward basis using Monte Carlo simulation. It calculates

from the bond credit spreads, which I believe is what he used, it calculates the probability of default based on the implied probability which are derived from the bond spreads, calculates your loss at any given point in time and sums the losses. But you're calculating first the default probability, your loss given default which assume some level of recovery and it sums them.

MR. TAMBE: And the part of that whole process that you complained about, you believe Gruer got wrong, is the recovery part of it, correct?

MR. CURRY: Well, there are a few things. You have the recovery. You have I don't know what type of simulations can be run given that that's a curve that only existed for the purposes of doing this analysis.

MR. TAMBE: On that one, on the curve part you don't know. On the recovery part you know and you think he got it wrong, correct?

MR. CURRY: On the recovery part I believe you should assume a zero recovery on this transaction.

MR. TAMBE: On that one you think he got it wrong.

MR. CURRY: I think he got it wrong.

MR. TAMBE: You have a view on that one. On the other one--

MR. CURRY: The other two.

MR. TAMBE: --on the curve you don't know whether

he did it right or wrong.

MR. CURRY: Well, I know that that curve doesn't exist, but I don't know what the effect of that non-existent curve would have in calculating your exposures.

MR. TAMBE: Right.

MR. CURRY: It could be wildly detrimental. It could be wildly beneficial. I have absolutely no idea.

MR. TAMBE: And your concern there, although you don’t have a view on that, is how it affects the exposure number, right?

MR. CURRY: Well, correct. What kind of exposure you get from this is going to determine your credit charge. So, if you have some fantastical curved that says that you don't have any exposure when you’re calculating the default probabilities it’s not going to give you the credit charge.

MR. TAMBE: Let’s not use a fantastical curve. Let’s use a curve that your partner Mr. Hasterok is familiar with, the three-month LIBOR curve. That’s not fantastical is it?

MR. CURRY: No.

MR. TAMBE: Okay, if you had calculated exposure based on a three-month LIBOR curve that part of the equation you don’t have a problem with.

MR. CURRY: If you had calculated it on a LIBOR swap where you’re paying fixed, receiving floating versus

three months I think Bloomberg would give you a result that's pretty similar--you would get a similar result from most parties. Your inputs there would be ensuring that you have the proper credit spreads in there so you calculate the correct probabilities of default and if you have the correct recovery assumptions.

MR. TAMBE: But what you wouldn’t do in that CVA model or anywhere else is take your floating curve and apply it to the entire curve, the entire amount of the credit charge, correct?

MR. CURRY: I don’t think any CVA pricer does that either. I think what they're doing is they're telling you the rate you're supposed to haircut your fixed rate. I didn’t think they sit there and--

CLERK: The rate you’re supposed to--?

MR. CURRY: Haircut your fixed rate or reduce your fixed rate by. I don’t know that it necessarily changes your floating rate assumptions.

MR. TAMBE: If you were running a CVA model, not doing what you did this case, but what you did every day at Morgan Stanley, if you were running your own proprietary CVA model you’d put in the probability of default. You didn’t run one for this case, did you?

MR. CURRY: No.

MR. TAMBE: Okay. Mr. Shapiro has run one.

You've seen that? No deep dive on that one?

MR. CURRY: No deep dive on that one.

MR. TAMBE: Do you have a view as to whether he's got the credit charge right?

MR. CURRY: I don't know because I don't know how he did it.

MR. TAMBE: Well, 85 percent of the claim number he comes up with is the credit charge. You have no view as to whether that's right or wrong?

MR. CURRY: I wasn't asked to review it.

MR. TAMBE: Okay. Not curious?

MR. CURRY: We were asked to provide our own valuation. We provided our own valuation. We were asked to look at Mr. Babble's and Mr. Gruer's valuations.

MR. TAMBE: Right. And who asked you to provide those valuations? Who invited you to this litigation?

MR. CURRY: Initially we had gotten a call from Peter.

MR. TAMBE: Peter Shapiro.

MR. CURRY: Who referred us to the TSA's lawyers.

MR. TAMBE: Okay. Did Peter Shapiro tell you great evaluation, but don't even take a sneak peek at mine?

MR. CURRY: Peter made an introduction and that was pretty much about it.

MR. TAMBE: All right. On your direct in the

original report, Exhibit X, I'm sorry, it’s your rebuttal report. It’s the chart you were talking about on page seven of Exhibit Z. It’s table at the bottom of the page. I believe you insert this table in your rebuttal report to make the point that there is no standard methodology. Is that right?

MR. CURRY: Correct.

MR. TAMBE: Okay and I think there was a discussion during your indirect that really what your point is that they may be idiosyncrasies for individual dealers on how they may run their proprietary models, but there’s a generally accepted approach of using forward curves versus a fixed leg. Is that right?

MR. CURRY: I think there is a standard methodology for the base which is determining your swap as your starting point.

MR. TAMBE: So there is a standard methodology up to a point.

MR. CURRY: Up to a point and then you’re inserting a view and that’s not standard.

THE COURT: Pull the microphone towards you. Thank you.

MR. CURRY: Up to a point you’re inserting a view is what I said.

MR. TAMBE: But up to that point you’re using

market data to come up with a value and after that point you use some subjective criteria to get to a final number. Is that right?

MR. CURRY: That's correct.

MR. TAMBE: Okay. And again to be clear, the way the market data is used is the way that Mr. Gruer used it, he went and got a forward curve, ran the floating rate analysis, compared it to the fixed rate cash leg and came up with mid-market number.

MR. CURRY: I don't know anybody who's used the methodology that Mr. Gruer used in terms of calculating that type of rate.

MR. TAMBE: Well, the only part of Mr. Gruer’s methodology that you disagree with is his use of the agency curve. If he’s used the LIBOR curve you’d be fine with it.

MR. CURRY: I would say that would be a starting point.

MR. TAMBE: It would be a what?

MR. CURRY: A valid starting point.

MR. TAMBE: The fact of the matter is you have no information as to why these dealers on page seven of Exhibit Z bid where they did, right?

MR. CURRY: Did I speak to them specifically to get their answer? I did not.

MR. TAMBE: But you didn’t do any investigation as

to where those numbers came from for any one of those dealers.

MR. CURRY: Again, this is a pretty standard piece of information that we would see after bidding.

MR. TAMBE: So the answer to my question is no?

MR. CURRY: Could you repeat your question please?

MR. TAMBE: Could you read it back please?

CLERK: You didn’t do any investigation as to where those numbers came from for any one of those dealers.

MR. CURRY: That's correct.

MR. TAMBE: And do you agree or disagree with Mr. Shapiro when he says there is--that valuing the RFA like a fixed or floating swap is the broadly accepted methodology of valuing these types of products?

MR. CURRY: From a dealer side I agree with that.

MR. TAMBE: When Mr. Shapiro made that comment was he hired by a dealer?

MR. CURRY: He was not.

MR. TAMBE: He was in fact hired by your client, right?

MR. CURRY: Correct.

MR. TAMBE: Okay. Do you think Mr. Shapiro did it as if he were Lehman? He gave effect to those words?

MR. CURRY: No.

MR. TAMBE: But that he did it that way

regardless, right?

MR. CURRY: I don’t know that you're supposed to give effect to those words so no.

MR. TAMBE: Well, let’s just be clear on one thing, you don't know anything about how those words got into that contract, correct?

MR. CURRY: I do not.

MR. TAMBE: And when you prepared your initial report you had no commentary whatsoever about those words “as if it were Lehman”.

MR. CURRY: I didn’t’ give it any weight because I thought it was procedural. Lehman failed to get bids. You get bids as if you were Lehman.

MR. TAMBE: So you did give it some thought, but you said you would not take it into account. That’s what your process was.

MR. CURRY: If that’s the way you want to put it, yes. I did not give it any weight because I didn’t feel that it had any validity.

MR. TAMBE: It’s not how I want to put it. I want to know what your process was. When we go to Exhibit X your partner told us what the important terms were in the transaction description grid on page four.

MR. CURRY: For the record I think that does misstate Mr. Hasterok’s testimony. He said some of the

important factors.

MR. TAMBE: Well--

THE COURT: The testimony was that it represents some of the critical terms.

MR. TAMBE: And there's no discussion in that grid about "as if it were Lehman", correct?

MR. CURRY: that is correct.

MR. TAMBE: And if someone were to conclude that those words do have some meaning they would be pretty critical, right?

MR. CURRY: I'm sorry, I didn't hear.

MR. TAMBE: If someone, a judge for example, were to give effect to those meaning--to those words, that would be critical phrase, would it not?

MR. CURRY: It would be if the judge gave it effect.

MR. TAMBE: Right. Because when you--when you give effect to those words you would do it as a dealer would.

MR. CURRY: I would calculate it as the TSA being the burdened party.

MR. TAMBE: So you wouldn't change your approach at all.

MR. CURRY: I would not have changed my approach.

MR. TAMBE: Your rebuttal report page 12. In the

middle of page 12, this is the passage about the John Hull article.

MR. CURRY: Mm hmm.

MR. TAMBE: Could you just enlarge that please? And this is one that you identified for inclusion in the rebuttal report, correct?

MR. CURRY: Correct.

MR. TAMBE: Okay. And you believe Mr. Hull and Mr. White are noted academics?

MR. CURRY: I do, yes.

MR. TAMBE: You know them by reputation.

MR. CURRY: By reputation, yes.

MR. TAMBE: Do you know them personally?

MR. CURRY: No.

MR. TAMBE: But you thought their words were meaningful and would be helpful to the Court.

MR. CURRY: I thought what was said there would be meaningful to the Court.

MR. TAMBE: Just these words or other words or other words that he used?

MR. CURRY: I believe there are other things in that particular presentation and they've done other presentations and other articles recently that are not included here, but--

MR. TAMBE: Just in terms of guidance to us, to

the Court, are these words better than the other words in the article?

MR. CURRY: I think it supported our argument or when we were--just as a response to Professor Battel saying that taking into account your own costs shouldn't or your own particularities shouldn't have any effect--should not have any effect in the way that you price a transaction. And this was brought up or I used this because you have an academic professor who’s basically saying the same and he's saying that the market does not agree with him and there have been other articles again kind of making that statement.

The other thing you can look at is all of the banks recently have taken very, very large charges against their derivative books in recognition that their own costs and their own particularities have an effect on the value of their derivative books. So, I believe it was Citigroup just this past few weeks which took a major financial write down in recognition of their own costs as it relates to their derivatives book.

MR. TAMBE: I’ll just ask that all that be stricken as non-responsive, your Honor. It didn’t answer the question.

THE COURT: Agreed. Sustained.

MR. TAMBE: Okay. All right, so let’s look at the

article, Exhibit 145.

THE COURT: Do you have an Exhibit number for the article?

MR. TAMBE: 145.

THE COURT: 145.

MR. TAMBE: I'm sorry, 145. It’s up on the screen. That the article we were just talking about that you cite in your report, correct?

MR. CURRY: Correct.

MR. TAMBE: Okay and you’ll see the title is talking about funding value adjustments in fair value. Do you see that?

MR. TAMBE: Like, what's up on the screen, that's the article--

MR. CURRY: Uh huh.

MR. TAMBE: You were just talking about that you cite in your report, correct?

MR. CURRY: Correct.

MR. TAMBE: Okay. And you'll see the title is talking about funding value adjustments and fair value. Do you see that?

MR. CURRY: Correct.

MR. TAMBE: And you understand what funding value adjustments are, right?

MR. CURRY: Yes, I do.

MR. TAMBE: Okay. And, as discussed in this article, when they talk about FVAs, they're talking about the dealer's own cost of funding, what it costs them to raise capital, correct?

MR. CURRY: What it costs them to support their derivatives book.

MR. TAMBE: Okay. To run the business?

MR. CURRY: To run the--to basically finance the balance created by the business.

MR. TAMBE: All right. And the debate in this article is about whether that type of cost--what it takes to run the business, to support the business--should be included in the valuation of transactions that these institutions do, correct?

MR. CURRY: Correct.

MR. TAMBE: Okay. And you cite, from page two, or you quote from page two of this article. And what you quote is right above, "The trader."

MR. CURRY: Mm hmm.

MR. TAMBE: "Many dealers find these theoretical arguments unpersuasive, and choose to make the adjustment anyway." You see that?

MR. CURRY: Yeah.

MR. TAMBE: Good. But, right below that discussion, what the authors do is they set out the

different perspectives, the trader's perspective, the accountant's perspective, the theoretician's perspective. Do you see that?

MR. CURRY: Yes.

MR. TAMBE: Okay. Now, then you get to page three, and these authors that you cite in your rebuttal report say the following, in the first full paragraph at the top of page three. "The theoretician's arguments and the accountant's arguments, although quite--though quite different, should lead to similar valuations, because the derivatives models used by theoreticians are usually calibrated to the market, and thus produce prices that are consistent with market prices." Do you see that?

MR. CURRY: I do.

MR. TAMBE: All right. If you move on to page 11--or page 10 of this article, there's a section called, "Implications of FVA." And it concludes on the next page. We can go to the next page, page 11. On the top of the page, the carryover paragraph, the last sentence reads, "The prices of dealers with high funding costs who do incorporate FVA into their pricing will be lower than those of dealers with low funding costs who do the same."

So, that's at least an explanation for the grid we saw elsewhere in your rebuttal report, this funding cost being incorporated into the bids being submitted by the

different dealers. You can't rule that out.

MR. CURRY: I can't rule that out.

MR. TAMBE: Okay. And, as you go down that page, you see a discussion right below--right above the word "arbitrage." Just to be clear, those funding costs that we're talking about have nothing to do with tobacco credit, right? It's the funding costs off the dealers themselves.

MR. CURRY: It's the funding cost of the dealers.

MR. TAMBE: Okay. And there's a concluding paragraph there that says, "We can conclude from these results that dealers with high funding costs who make FVAs, whether or not they also make DDA1s, tend to sell options to end users, not buy options from them, which means that their books are not balanced between long and short positions. Furthermore, they are unable to offer end users a full range of services in derivatives markets competitively."

So, the conclusion of these authors is, if you're doing that, if you're including FVAs, you're unable to compete effectively in the derivatives markets. Right?

MR. CURRY: That's their conclusion. I'd need to read much more of it to redigest it.

MR. TAMBE: Okay. And redigest it because you have read it before.

MR. CURRY: It has been some time.

MR. TAMBE: Okay. In the next section, under

"Arbitrage," following that conclusion, the very next line reads, "These results lead to arbitrage opportunities for end users." You see that?

MR. CURRY: I do.

MR. TAMBE: Okay. So, that's an opportunity for someone like the TSA, when you have dealers doing the kinds of things they're doing with FVA.

MR. CURRY: Except the FVA is mostly related to uncollateralized derivatives. So, when you're talking about arbitrageurs, you're typically talking about hedge funds who are collateralized traders.

MR. TAMBE: Okay.

WOMAN: (indiscernible)

MR. CURRY: Collateralized traders.

MR. TAMBE: Now, this article, as it says at the top, talks about FVAs and fair value. And so, there's a discussion of what's fair value here, in this article, correct?

MR. CURRY: It's funding value. And it's FVA, which is funding value adjustment, and DVA, which is a debt value adjustment.

MR. TAMBE: No, no, I'm sorry. The title of the article is, "Funding Value Adjustments and Fair Value." That's what the article is about.

MR. CURRY: That is correct.

MR. TAMBE: We talked a little bit about FVA. Let's talk about the other part of this article, fair value.

MR. CURRY: Okay. But it does say--

MR. TAMBE: And the section begins on page 15 about fair value. And it's a lengthy discussion, but let's read some of their observations. Should--second sentence, there, "Should two entities with different funding costs have different fair value estimates for the same asset? The answer is no." Two lines down, "But A and B should agree that the fair value of the shares is their market price. The fair value may be different from the private value that A and B place on their shares because of funding costs or for other reasons."

Next paragraph, "The fair value of an IBM share is the market price, the price that balances supply and demand. Similarly, the fair value of a derivative is the price that balances supply and demand, the price at which the number of market participants wanting to buy equals the number of market participants wanting to sell." You see that?

MR. CURRY: I do see that.

MR. TAMBE: And the LIBOR swap market, for example, is a market where there's lots of buyers and lots of sellers, hundreds, thousands, right?

MR. CURRY: Correct, and it's a mostly collateralized market, which doesn't give rise to these

issues.

MR. TAMBE: Now, over to the next page, page 16, first full paragraph, the last sentence. Your authors that you cite in your report say, "The key point is, although there can be a number of different private values for a derivative, there is only one market price or fair value." Did I read that correctly?

MR. CURRY: You did.

MR. TAMBE: Okay. Let me have a moment, your Honor.

THE COURT: Sure.

MR. TAMBE: I think I'm almost done. No further questions from me, your Honor.

THE COURT: Okay. Thank you. Mr. Lawrence?

MR. LAWRENCE: I just have a couple of questions. I just want to make something clear. In the point--I think one of the first questions that Mr. Tambe asked you is whether or not you had been--done analysis that supports interest rates remaining unchanged. Is your opinion that interest rates will remain unchanged from 2009 to 2013?

MR. CURRY: No.

MR. LAWRENCE: 2032, sorry.

MR. CURRY: No.

MR. LAWRENCE: Could you explain that?

MR. CURRY: We used the rates that they had

received historically up through the rejection date. And we used that rate going forward. Subsequent to the rejection date, interest rates are considerably lower than where they were on the rejection date. They are considerably lower than the 65 basis points. So, in order to get to the 65 basis points, interest rates at various points are going to be--need to be higher than the 65 basis points to equate to the present value that we calculated using the 65 basis points.

MR. LAWRENCE: And did you ever do any sort of analysis of what that would look like going forward in the future in order to get to the 65?

MR. CURRY: You know, we've done some back-of-the-envelope type things. But, you know, the longer they're in this prolonged rate environment, the higher future rates will need to be in order to equate to the 65 basis points.

MR. LAWRENCE: There's--there were a number of questions about risks and investments. Is--what is the differ--sorry. What is the relationship between the degree of risk and the yield, based on your understanding of financial instruments?

MR. CURRY: The higher the risk, the higher the yield.

MR. LAWRENCE: And is it your experience that different investors have different risk tolerances?

MR. CURRY: That is my--based on my experience, that is correct.

MR. LAWRENCE: Is TSA an arbitrageur?

MR. CURRY: Not that I'm aware of, no.

MR. LAWRENCE: Could you explain what an arbitrageur is and why TSA is not an arbitrageur?

MR. CURRY: An arbitrageur is somebody who seeks to exploit pricing differentials in different markets, different dealers, that type of thing. So, buying from X to sell to Y to capture the spread.

MR. LAWRENCE: And does TSA have the ability to do that, to your understanding?

MR. CURRY: Not to my understanding, no.

MR. LAWRENCE: I wasn't sure I quite followed the entirety of your discussion about funding values, et cetera. But there seemed to be some references to market participants buying assets. Are there any market participants, to your knowledge, that are willing to--that were willing to buy the TSA RFA in March of 2009?

MR. CURRY: Not that I'm aware of, no.

MR. LAWRENCE: Any RFAs in 2009?

MR. CURRY: Not that I'm aware of, no

MR. LAWRENCE: Now, if Mr. Gruer is right, and this contract had a value in favor of the dealer of $1 million, would you expect a market participant to be willing

to purchase a contract worth $1 million?

MR. CURRY: Yes, I would.

MR. LAWRENCE: But nobody would.

MR. CURRY: That is my understanding.

MR. LAWRENCE: Thank you.

THE COURT: Mr. Tambe?

MR. TAMBE: Just two questions, your Honor.

THE COURT: Okay.

MR. TAMBE: It's the average comment, the 4.66 average.

MR. CURRY: 4.6?

MR. TAMBE: 4.66 average, we've discussed it a couple of times. That's looking back to 2002--looking back to 20--looking back 23 years, right, where Mr. Gruer looks back 23 years and he says, on T-bills, if you really look at the 23-year span, it's going to be 4.66 as the average. Right?

THE COURT: Yes, Mr. Lawrence?

MR. LAWRENCE: Yeah, I would object. It's beyond the scope of redirect.

THE COURT: Okay. Well, your redirect was beyond the scope of the cross, so.

MR. LAWRENCE: They balance out.

THE COURT: I think they balance out.

MR. TAMBE: And you said, given the low interest

rate environment we're in right now, rates would have to be really high over the next 23 years to hit 4.66. Was that right?

MR. CURRY: Sure, if you go and you look at what they've earned between their rejection date to now, it's very, very low. If you want to assume, as you were popping into Jeffrey's model, that they're going to earn 4.66, rates have to be considerably higher than the average going forward in order to make up for the loss that they've had to date.

MR. TAMBE: The loss of the last four years, right?

MR. CURRY: Yes.

MR. TAMBE: But the 4.66 average starts 23 years ago.

MR. CURRY: (indiscernible) Sorry. It's five years.

MR. TAMBE: 4.66 average, correct?

MR. CURRY: I'm sorry?

MR. TAMBE: It's the 4.66 average starts based on observations from 23 years ago, until March 2009, correct?

MR. CURRY: I don't have it in front of me, but I believe that's what you showed.

MR. TAMBE: So, when you computed--when one computes that average, you're including September 2008,

October 2008, November, December, January, February, March. You're including post-crisis periods of time, correct?

MR. CURRY: Correct.

MR. TAMBE: That's the math. The math includes all those observations.

MR. CURRY: Correct.

MR. TAMBE: Now you're going to start in March 2009 and go forward 23 years.

MR. CURRY: Correct.

MR. TAMBE: Is it inconceivable that you'd get to 4.66? How is that any more different than the previous 23-year period?

MR. CURRY: I think you have a whole bunch of financial regulatory reform, a bunch of deleveraging of the system. There are a lot of things that I think will keep rates somewhat more contained. But that's a view.

MR. TAMBE: I thought you just said you have no view as to what's going to happen to rates in the future. Isn't that right?

MR. CURRY: I think rates will change in the future.

MR. TAMBE: They will change. They will go up?

MR. CURRY: They'll go up; they'll go down.

MR. TAMBE: Well, it's kind of important to how this case gets resolved whether you think they're going to

go up or they're going to go down.

MR. CURRY: I think they'll go up and go down. I think every day there'll be changes in interest rates. I think, if you've gone and you've observed over the last five-plus years, every day the interest rates are different than they were the day before.

MR. TAMBE: Right. But there is a developed market just up the street that has lots of traders, end users, financial institutions, insurance companies, buying and selling the very types of securities we're talking about that speak to interest rate views. Correct?

MR. CURRY: There are.

MR. TAMBE: So, there's some information. There was information on March 25th, 2009, that you could gather that from, right?

MR. CURRY: From that I could probably gather where long-term interest rates were on those given trading days.

MR. TAMBE: And you said there weren't--there wasn't a market for RFAs. You don't disagree there was a liquid, deep market for Treasuries, correct?

MR. CURRY: I don't disagree. That's correct.

MR. TAMBE: It's a $10 trillion market. It's a deep market, right?

MR. CURRY: Very deep market.

MR. TAMBE: Okay. Same with commercial paper? Deep, well-developed market?

MR. CURRY: In general, I think there was some stress in the CP market around the time of the rejection date.

MR. TAMBE: But, in general, still good?

MR. CURRY: I think things trade.

MR. TAMBE: Lots of things trade, right?

MR. CURRY: Sure.

MR. TAMBE: And agencies, there were lots of agencies trading on March 25th, 2009, correct?

MR. CURRY: I believe so.

MR. TAMBE: Okay. Thank you.

THE COURT: All right?

MR. TAMBE: No further questions.

THE COURT: All right. Thank you very much, Mr. Curry. You're excused.

MR. CURRY: Thank you.

THE COURT: Okay. Do you want a--I assume we're hearing from Mr. Shapiro next?

MR. LAWRENCE: Yeah. And then--

THE COURT: Do you want a brief break?

MR. LAWRENCE: Just five minutes, your Honor.

MR. TAMBE: Yeah, that's okay.

THE COURT: Okay. We'll come back at 3:30, and

then that'll probably get us into basically the home stretch for the day.

[BREAK]

THE COURT: Please have a seat. I assume that Mr. Shapiro is sitting there in the corner?

MR. LAWRENCE: Yes, that's Mr. Shapiro.

THE COURT: Please come on up, Mr. Shapiro.

MR. SHAPIRO: Okay. I was making my walk shorter.

THE COURT: Okay. Would you raise your right hand please, sir? Would you stand and raise your right hand?

MR. SHAPIRO: Stand?

THE COURT: Yes. Do you solemnly swear or affirm that all the testimony you are about to give before the Court shall be the truth, the whole truth, and nothing but the truth?

MR. SHAPIRO: I do.

THE COURT: All right. Please have a seat. Make yourself comfortable. Let us know if you'd like a break or if you need anything else.

MR. SHAPIRO: Okay. Thank you.

MR. LAWRENCE: Good afternoon, Mr. Shapiro. Could you start by telling us your education background?

MR. SHAPIRO: Graduated from high school in Maplewood, New Jersey. Went to Harvard University, graduated from there with honors in 1974. I'm getting a

little old at this point. And the--yeah, you know, I had--I did a senior executive program also at Harvard's Kennedy School of Government, which was jointly done by the business school and the governmental school.

MR. LAWRENCE: You had a career before finance that you could be very brief but tell us about that career.

MR. SHAPIRO: I spent, oh, a little more than a decade in government. I was an elected official. I was elected at a very tender age of 23 to the state legislature in New Jersey, the lower house, the state assembly. I served there for two terms. Then I was elected as the county executive of Essex County, which is like being the mayor of a big local government, in 1978, elected to that for two four-year terms. Then I made the unfortunate decision to run for the Democratic nomination for governor of New Jersey, won the nomination, and lost thumpingly in the general election, November of 1985.

MR. LAWRENCE: When you decided to leave politics, where did you go?

MR. SHAPIRO: I went to work at Citibank. I had--I was lucky to have a number of nice job offers. I thought it was a good time to try to make some money, because, if you're honest, you don't make much money in politics. And I took a job on Wall Street, working for Citibank, working in their municipal bond public finance area.

MR. LAWRENCE: And tell us your--how your job progressed at Citibank.

MR. SHAPIRO: I was hired as a vice-president in the public finance department. The goal there really was to try to increase the negotiated public finance business that Citibank did. Shortly after I got there in 1987, there was a lot of market turmoil. One of the great crashes in market history, of course, occurred in the fall of 1987. I had been there only a few months. My boss got fired, and his boss got fired.

And, by, you know, a set of circumstances that is still hard for me to understand, his boss came to me--that is, my boss's boss's boss came to me and said, "Will you take over? Will you be the head of the department now?" And, looking at the alternative of that versus not working, I figured it was a good choice to do. So, I became the head of the public finance department in late 1987.

MR. LAWRENCE: Could you tell us about your Citibank experience as it relates to financial instruments that you think are relevant to your opinions?

MR. SHAPIRO: Yeah, it was actually very interesting, because Citibank, as it turned out, was not terribly good at bond underwriting in those days. It did a good job as a competitive underwriter, but not in the area of negotiated underwriting, which was the profitable area.

The area it seemed like we were good at earning money at was derivatives. Citibank was a very early mover in derivatives. It was one of--when we look back at it historically, one of the great training grounds for a lot of the people who acquired a lot of the greatest expertise in the derivative business. And I was lucky to be there early on. I actually converted the public finance effort at Citibank from one that principally pursued bond business to one that really would principally pursue derivatives. And so, that was very early exposure for me in what was then a nascent market.

MR. LAWRENCE: And then, when you left Citibank, where did you go?

MR. SHAPIRO: I left Citibank in 1993 and went to Euro Brokers.

MR. LAWRENCE: And tell us what you did there.

MR. SHAPIRO: Euro Brokers is a--or was a firm; it's now part of Cantor Fitzgerald. And both firms basically evolved in the same thing, which is what's called inter-dealer brokering. That is, there's a function in the markets of firms that broker financial transactions and securities between the big banks and between the big dealers, rather than having them deal with each other directly.

I went there really with the concept, which I had

gotten at Citibank, that there was a real market gap in providing good, neutral advice to end users, to issuers, to entities like Washington TSA, in the use of derivatives. Before that, they exclusively had to rely upon the advice of the banks. And the banks had interests which were not just different from their own but actually contrary. So, I felt there was a big market gap in providing, again, dispassionate, neutral advice and trying to explain things well so people understood the risks of complex transactions and got them fairly priced.

MR. LAWRENCE: And how long were you at Euro Brokers?

MR. SHAPIRO: I was at Euro Brokers for about four years. And then I set up Swap Financial Group.

MR. LAWRENCE: Tell us about Swap Financial Group. And what do they do?

MR. SHAPIRO: Swap Financial Group took this basic concept that I had when I went to Euro Brokers, and we basically spun it off as a standalone entity doing just that, providing advice to end users on how to approach a complex and often opaque part of the financial market that you potentially could get hurt in, making it so that end users--governments, nonprofits, some non-financial for-profit entities--could get fair, level playing field treatment in the derivatives business.

And our clients really are, you know, the biggest and often the most important entities in the public sector--that is, among state and local governments predominantly; in the nonprofit area, where they're the biggest hospitals and universities; or, in many cases, in the private sector, the major real estate developers, various entities like that that use derivatives but are not banks or hedge funds or the like.

MR. LAWRENCE: And tell us some--have you been--in Swap, have you been retained as an expert by any governmental institutions?

MR. SHAPIRO: As an expert in the sense of an expert witness, or--

MR. LAWRENCE: Well, let's start more broadly, as being able to help government institutions, for example, in investigations or other dealings, but on the federal level, let's start.

MR. SHAPIRO: Our predominant business has always been working with--you know, with our clients on managing risk and handling transactions. But we've also been brought in many times by people who've run into some trouble, or they need some expertise to understand a complex situation. You know, so, there--and particularly since the financial crisis, we have been brought in on litigation matters, on all the troubles that have come out of the financial crisis.

MR. LAWRENCE: Have you been retained by any federal government agencies to assist in investigations related to any issues in the market?

MR. SHAPIRO: Yes. And, you know, I think it's one of the things that's very important to us, is our reputation for integrity and honesty in this business. I think it goes to that, to some extent. The SEC, for example, reached out to us and asked us to be their expert witnesses on the biggest scandal in the municipal market, which is the scandal involving Jefferson County, Alabama, and the huge sewer borrowing and the accompanying swaps that were surrounding that.

We've also been reached out to by the IRS, when they needed somebody to help trade--train their field examiners in spotting abusive transactions, you know, that kind of thing.

MR. LAWRENCE: And what percentage of your clients are public entities?

MR. SHAPIRO: Excluding nonprofits?

MR. LAWRENCE: You can include the--you know, or you can include nonprofits, yeah.

MR. SHAPIRO: Okay. Yeah. I would say governmental entities we characterize as typically 20-25 percent. Nonprofits are 15-20 percent.

MR. LAWRENCE: And tell us about your experience

at Swap as it relates to the relevant financial instruments that you've opined about here.

MR. SHAPIRO: Our expertise is in complex financial products, and particularly the swap market and those that use swaps as their base, like forward delivery agreements do, forward purchase agreements, of which the reserve fund agreement is one example. So, we've had years and years of experience on that.

I should say you've asked about my specific experience, but my whole team is very experienced in various aspects of that. And the other people who helped work on this specific project had great experience in them as well.

MR. LAWRENCE: Okay. And what is your role in ownership in Swap?

MR. SHAPIRO: I own 79 percent of the stock.

MR. LAWRENCE: Okay. And how big is Swap in terms of number of people?

MR. SHAPIRO: We have six professionals. We're a boutique.

MR. LAWRENCE: Did you have some relationship with any entity related to the TSA before you were retained with respect to this matter?

MR. SHAPIRO: We were initially retained and got to know the staff of the TSA when we were hired to assist the Washington State Housing Finance Commission.

MR. LAWRENCE: And what type of work did you do for the Washington State Housing Finance Commission?

MR. SHAPIRO: We helped them develop a swap policy. We helped them examine some swap strategies and enter into a small number of swaps.

MR. LAWRENCE: And could you describe your initial contact from TSA regarding doing work with respect to this claim?

MR. SHAPIRO: Yeah. I initially heard from TSA, I think it was from Bob Cook, although it may have been from Kim Herman, with regard to this situation, in December of 2008. And they had an issue with regard to the reserve fund agreement because of the Lehman bankruptcy.

MR. LAWRENCE: And what did you tell TSA about your experience as it relates to the questions related to the (indiscernible)?

MR. SHAPIRO: I told them we had experience with this type of agreement, and that we could help them look at valuing it appropriately.

MR. LAWRENCE: And before we get into detail about that, I know that you've done a lot of work with respect to Lehman claims. Can you talk generally about how many claims involving Lehman you've been involved in?

MR. SHAPIRO: You know, our firm is a very busy firm. We typically do more than 100 transactions a year.

So, we're constantly working on transactions. Some years, we do as many as 300. When the Lehman bankruptcy hit, we were hit with an avalanche of requests to work with people who were adversely affected by the bankruptcy. We handled more than 1,000 terminations of Lehman transactions between the September 15th filing date on the Lehman bankruptcy through, I'd estimate, it was probably the end of the second quarter of 2009. So, this was an intensely busy involvement for us, looking at how to value these contracts fairly.

No, that's--this is actually somebody else's book, I think.

MR. LAWRENCE: Right.

MR. SHAPIRO: Thank you. Can I get rid of these, too? Because--if there's a recycling system here?

THE COURT: Mr. Lawrence, would you help figure out the folder there?

MR. SHAPIRO: Oh, I just--I'll hand them over.

MR. LAWRENCE: (indiscernible)

MR. SHAPIRO: There's a--it looks like I'm at the end of the day; they've piled up.

MR. LAWRENCE: Would you look at Debtor's Exhibit Number 34?

MR. SHAPIRO: Would that be behind Tab 34 here? Or--

CLERK: (indiscernible)

MR. SHAPIRO: Oh, okay. Or should I just look on the screen?

MR. LAWRENCE: You can--if you want it, it's up on the screen. That's fine.

MR. SHAPIRO: Okay.

MR. LAWRENCE: So, what is Debtor's Exhibit 34?

MR. SHAPIRO: This is a memo from me to Bob Cook at the TSA, describing the scope of services that Swap Financial Group would provide for the TSA.

MR. LAWRENCE: And, with respect to valuation, what were you retained to do?

MR. SHAPIRO: We were attained to--attain--we were retained to provide a--you know, a valuation of the contract. If we look at what it says, "Review and analysis to determine a reasonable valuation," you know, to assert based on Lehman's default under the terms of the agreement. You know, taking into account the standard for determination, the termination value based on the terms it's described in it.

MR. LAWRENCE: And did you--is this, in fact, what you have done in part for TSA?

MR. SHAPIRO: Yes.

MR. TAMBE: Object to the form; leading.

MR. LAWRENCE: Okay. In addition, there's some other provisions in the contract. The second one has to do

with strategy and the third one has to do with negotiation and litigation assistance. Can you explain what those are and how they relate to your valuation task?

MR. SHAPIRO: Yes. It's--we had had a fair amount of experience at this point with the Lehman estate and the Lehman bankruptcy. And we knew that the job with regard to advising TSA would go beyond just trying to establish what the fair and reasonable value for the contract was. It would also involve getting paid. It was, I mean, how would you work to make sure that that claim could be made properly, that you could get paid fairly for what--and fully for the claim that you were entitled to.

MR. LAWRENCE: Now, Mr. Tambe, in his opening, suggested that, under Section Two, that the goal of maximizing the financial authority's potential financial benefit--and you can show the rest of the contract, and highlight it--somehow suggests that you were hired to inflate the claim. Is that accurate?

MR. SHAPIRO: No, it's totally inaccurate. One of the things that was very important to us as a firm when we started to look at the Lehman bankruptcy, on day one, was that we knew we had to do things fairly. We knew Lehman basically had disappeared. It's--all there were now were claimants on--creditors and claimants on various sides. And we had clients that would be in both positions.

The goal was not to hurt Lehman or to try to pick over the carcass of a dead Lehman. The goal was to try to do this fairly, knowing that we were dealing with the largest bankruptcy in American history and that everything we would do would be scrutinized.

When we're trying to maximize what the client gets, of course, within the context of what is warranted, if you read the full sentence which I think Mr. Tambe conveniently did not quote, it says, "After establishing that whatever claim is warranted, then we're seeking to maximize the return on that claim that the client is going to get."

MR. LAWRENCE: So, what are the challenges that you faced with the valuation assignment?

MR. SHAPIRO: This is an intensely challenging contract to value. It's a complex contract to start with. Anybody who describes it as other than that simply doesn't know these contracts. You can see that on its face from the initial bids that came in, in a fully functioning market in 2002, by how far apart they were, that the complexity of the contract is well viewed by something like the dispersion of bids in a healthy market.

And then, secondly, you compound this enormously by taking this into the financial crisis and a period of time where the market for this product had disappeared,

where there was no such market. So, now you're having to come up with a value in a nonexistent market. It's extraordinarily challenging assignment.

MR. LAWRENCE: Can you describe the elements of the RFA that made it so complex?

MR. SHAPIRO: Forward purchase agreements, of which the RFA is one, had become very much less liquid during this period of time. There was an aversion to complexity which set in very strongly with the financial crisis. Banks were backing away from these products, you know, at--very, very rapidly.

And then, when you overlay it on that it was tobacco, there were no banks willing to do it. And when I say "banks," your Honor, I mean banks and dealers. I'll use that term interchangeably. By this time, when we sit here in 2014, they are virtually all banks anyhow. But, back in 2008-2009, you had broker/dealers and banks, and we called them all dealers. But to back a risk was something they didn't want to take on. By everybody's account here, this market had completely died. It was moribund.

MR. LAWRENCE: Were you tasked with trying to get market quotations for replacement RFA contracts?

MR. SHAPIRO: The contract required that as the first choice for termination.

MR. LAWRENCE: Can you tell us what you did in

that regard?

MR. SHAPIRO: Yes. We--and we'd done this many, many times at this point, because the default election in ISDA contracts, which govern swaps, of which we have dealt with so many, is also to do market quotation. So, we'd spent a lot of time on market quotations. With this one, it was very easy because everybody just said no. We've called every conceivable provider in this business, and people just said, "I'm not doing tobacco FPAs. Forget about it. I don't even want to see the papers."

MR. LAWRENCE: Now, you heard Mr. Tambe, in opening, make a point about how there's a lack of documentation about your efforts to contact dealers to get a replacement RFA. Can you explain that?

MR. SHAPIRO: Yeah. Now, of course, in retrospect, if I'd known I'd be sitting in a courtroom with Mr. Tambe pointing at me on this point in 2014, we would have made all sorts of records so that we could show them on this. But the reality is there was no requirement to do--to say how many people we contacted, who we contacted, and put that in writing on that. We went out to the whole market, as we always did on these things.

Our sequence was always as follows; this is our procedure. First we survey the market to see who's willing to provide a market quotation. Then, once we find people

who are willing to provide market quotation, we provide them with the full panoply of documents which would be required to make that market quotation in a rigorous manner. In this case, no one said they would do it.

MR. LAWRENCE: So you never got beyond the survey part.

MR. SHAPIRO: Correct.

MR. LAWRENCE: And, when you say, "survey the market," can you just explain what it is that you're enquiring about?

MR. SHAPIRO: We're looking for people who are willing to spend the time to place a value on this agreement in a rigorous manner that would be a bona fide quotation.

MR. LAWRENCE: And was anyone willing to do that for the Washington TSA?

MR. SHAPIRO: No. In fact, it was worse than that. Anybody we talked to said, "We're not providing this product anymore," if they ever were.

MR. LAWRENCE: So, I'm sorry, did--

THE COURT: No.

MR. LAWRENCE: I thought I heard a noise. In terms of your next steps, what did you--how did you approach the next steps? As you said, the first step is market quotation process. How did you approach the next step in terms of valuing the RFA?

MR. SHAPIRO: The next step is to try to--is to go to the definition that we usually refer to as "loss," that is, loss is the term that's used in ISDA, and it's this similar concept which is contained within this agreement. It's almost word-to-word borrowed from the ISDA master agreement. And we look at loss to look at what--how would you value this contract in the absence of a market? What's the fair market value for the contract so we can assess what the loss is?

In order to do that, we have to try to construct what I would call hypothetical replication. In other words, if there were a market, where would it price? And it's a series of "what ifs" that we have to go down there. The--certain of this is quite straightforward. I described this as complex. But it doesn't take rocket science to understand the basic parameters of this.

Interest rates had plummeted. We were down 200 basis points in terms of interest rates. So, comparing interest rates at inception in '02 versus interest rates now that we're on the termination date, we're way down. Okay?

Second, you're looking at overall interest rates; you then have to look at what are spreads to the relevant interest rate. The relevant interest rate, as has already been discussed at great length, being the LIBOR-based swap, the fixed rate on that LIBOR-based swap.

The spread that a dealer would put in consists of a number of components, and we'd have to go back and say, "Okay, what if there were a functioning market? Where would they put these spreads for profit, for their costs, and, importantly, for the--for credit on this, given what we know?" We know fundamentally--and this is the non-rocket-science part of it--that spreads had widened dramatically. That's much worse. So, you have rates dropping, spreads widening. You know this contract is one where there was a lot of damage that occurred.

MR. LAWRENCE: When you say "a lot of damage," what do you mean?

MR. SHAPIRO: That the loss to Washington, loss to TSA, was significant.

MR. LAWRENCE: So, could you outline the steps you went through in terms of trying to identify the hypothetical replacement contract?

MR. SHAPIRO: If I may, the steps are pretty well outlined in the loss calculation memo. I don't--

MR. LAWRENCE: Sure.

MR. SHAPIRO: Yeah.

MR. LAWRENCE: Let's go there. So, this is attached to your expert report, which is TSA Exhibit W.

MR. SHAPIRO: Try to--thanks for blowing that up a little.

MR. LAWRENCE: Or the expert witness disclosure.
MR. SHAPIRO: What's that?
MR. LAWRENCE: Your expert witness--it's attached to your expert witness disclosure. This was actually prepared in 2009, correct?
MR. SHAPIRO: Correct. Yes. The--you know, the process that's described in here describes it pretty well. But, of course, the process begins with looking at the agreement or examining all the parameters of the agreement.
When you look at forward purchase agreements, basically they fall into two broad categories. There are those that allow commercial paper to be delivered and those that do not allow commercial paper to be delivered, so that there--when you go across the marketplace and you look at quote sheets provided by dealers, and the way in which forward purchase agreements are quoted within the market, they're either quoted as CP FPAs or non-CP FPAs, where basically Treasuries and sometimes agencies are allowed but not CP.
This was a CP FPA. So, you start out with knowing that the dealer could deliver CP, which provided some benefit, because CP was thought of as a cheaper to deliver, that is a higher yielding instrument, than either agencies or Treasuries. So, that provided some benefit. That's a benefit not to the agency in this case; that's a benefit to

the dealer, so, in this case, to Lehman.

So, we first implied a spread working in Lehman's favor on that case. As we'll get to subsequently, you know, there are some questions that I've got about whether our initial spread that we included in this memo was correct. But we included a spread in Lehman's favor of 66.6 basis points. Then we look at--

MR. LAWRENCE: Before you move on, why did you choose commercial paper among the eligible securities?

MR. SHAPIRO: Because commercial paper was the cheapest to deliver, the highest yielding. If we look at short-term Treasuries or short-term agencies, the other eligible deliveries, they were lower in yield.

MR. LAWRENCE: And so, how did you--and let's start with how you originally determined the CP spread in 2009.

MR. SHAPIRO: Yeah. When we looked to determine the CP spread, we--I primarily had one of my staff members working with me on this, who's--has been mentioned already, I think, James Vergara. And he had come out of the Lehman shop. He had worked at Morgan Stanley. He knew these agreements very well. And I asked him to take charge of taking the first cut at this.

The other person who worked with us on this, Matt Singer, is more senior to him. He's my partner in the

business. He had worked for about 21 years at Bear Stearns, which was one of the other leading dealers in providing forward purchase agreements. You know, if we looked at who were the big guys in this.

James put together the memo, and he looked at commercial paper spreads, and he said, looking at this, we had a commercial paper spread--and here I want to read in the document, here. Yeah, it's saying in here that the typical spread that he perceived was 20-30 over LIBOR, better for the dealer than LIBOR. He says, however, on the date in question, the trading spread was significantly greater, about 66 1/2 basis points, 66.6. So, he was doing that presumably by looking at an indication he would get off of one of our data feeds of where commercial paper was trading.

MR. LAWRENCE: So, what did you look at next, after the commercial paper spread?

MR. SHAPIRO: The next critical issue was looking at what the charge would be for tobacco credit. And this is a critical issue. We know this is--was an incredibly big move that had occurred in the market over this period of time with regard to the credit markets. Credit markets in general had blown out. As I mentioned earlier, credit spreads across the markets had grown much wider. But--

MR. LAWRENCE: When you say "credit spreads,"

could you explain to us what you're talking about?

MR. SHAPIRO: Yeah. What I mean is what investors, or the market, if you're going to call the market a person, were demanding for taking credit risk, how much compensation they would want to get for that. So, we would look at indicators of that like issuers that were very high rated, AAA rated issuers, whether it was top banks or non-bank entities or top nonprofits, and see what had happened to their credit spread. You knew the story across the market.

I think I showed it in my rebuttal report, some of the numbers on that. But the expansion in credit spreads across the market was huge. For tobacco, however--oh, do you want to go to that first?

MR. LAWRENCE: Yeah.

MR. SHAPIRO: Okay.

MR. LAWRENCE: As long as we're on the subject. It's going to be ahead in my outline.

MR. SHAPIRO: I could go back to the other one first, and we could pick up, if that's easier.

MR. LAWRENCE: Okay. That sounds good.

MR. SHAPIRO: Okay.

MR. LAWRENCE: Okay, you were about to talk about tobacco.

MR. SHAPIRO: Tobacco credit spreads had--you

know, if general credit spreads had rocketed higher, tobacco credit spreads were on a moon shot. Tobacco credit spreads blew out to levels which were just unheard of. TSA's bonds, which, your Honor, by the way, are some of the most--some of the best of the tobacco bonds; you've heard this earlier, they were among the least leveraged--in December 2008, they were trading at 12 percent.

That's 12 percent for a tax-exempt bond in a market where interest rates on the long end, remember, as measured by things like Treasuries and LIBOR swaps, had plummeted 200 basis points. So, to see that tobacco bonds, even for good tobacco bonds, go to 12 percent was just awe-inspiring as a pure measure of tobacco risk alone.

MR. LAWRENCE: What was the--and I'm not sure if this was the right word--what is the notional or the rate that the tobacco bonds, the TSA bonds, were paying on their face?

MR. SHAPIRO: The face--you can see it on the coupon, 5 3/4. And I think, actually, it was 5 5/8, I believe, on the--on one of the long. It was 5 5/8, 5 3/4 of the coupons on the long TSA bonds. So, the fact that it was now at 12 in December of 2008 was huge. By the time we wrote this, in looking at markets in March, the termination date, there were about 10. But, you know, that's--that's just an astounding rate movement.

And then, looking at what does that mean, if we want to look at spread, we're not going to compare Treasury or swaps on a bond. You're going to compare--to look at tobacco credit spread, you're going to compare it to other long muni bonds. So, our point of comparison to try to be fair, not to try to exaggerate the spread, was to compare them against the single-A rated municipal revenue bond index that Bloomberg keeps.

If we wanted to exaggerate the spread, we would have compared them to the AAA. But comparing them to the single-A--in fact, it's actually a single-A-minus on this scale--we looked at that, and that produced a spread between the index and that 10-percent yield of where the Washington tobacco bonds were trading. It was a spread of 429 basis points.

MR. LAWRENCE: And so, how did you utilize that spread in determining what range of credit charge would be?

MR. SHAPIRO: To determine the credit charge, in a swap or an FPA, you know, a reserve fund agreement, you have to look at some metric to go by. The best metric, of course, would be if you had comparable trades that you could point to, look for some live trades in the market that had existed. As we said, the market was dead. There were none.

So, we have to use the next-best metric which we have, which is the trading which is going on in the bond

market. So, we applied this spread to looking at how--what kind of spread you would put in versus the baseline LIBOR swap, in calculating the placement yield on a new RFA, on this, as I said, the hypothetical replacement, hypothetical replication. So, we subtracted that spread as part of calculating the overall spread from LIBOR that would have to be used here.

MR. LAWRENCE: And then you looked at another--sorry--another component, too. Is that right?

MR. SHAPIRO: Yes, we looked at another component. This is shown at the bottom--thank you for enlarging it for me on this little screen--which is the profit component. Nobody works for free. And so, if you're looking at where a--where a new agreement could be gotten, you have to assume that there's some profit in it. And we put 25 basis points in it, which was a moderate profit level that we thought was representative of what a dealer would charge at that time.

MR. LAWRENCE: So, how did you then incorporate these three components, in trying to figure out the calculation of loss?

MR. SHAPIRO: It's shown well on the table in the memo, where it shows that the CP spread is a positive factor and the other two are negative factors, giving us a 3.874 negative spread.

MR. LAWRENCE: And what is that--what are you

saying when you say there's a 3.874 negative spread? What are you describing?

MR. SHAPIRO: We used that as--in order to determine what the--you know, what the replacement yield would look like, what the dollar value of the loss would look like. And the dollar value of the loss here on this memo came out to calculate a loss of $46.4 million, using a--or 46-point--yeah, because I'm--we have to take out--this is before we apply the unpaid amounts. But, you know, looking at what this--what it produces in terms of dollars, using an end date of 2042, which, when we wrote this memo, that's what we believed to be the end date.

MR. LAWRENCE: Okay.

MR. SHAPIRO: This was subsequently revised.

MR. LAWRENCE: Right. And, just so we have that complete, in your disclosure, you made a revision to reflect the correct end date, correct?

MR. SHAPIRO: Yes. What had happened was, originally, we--as has already been heard by the Court, there was an amendment to the agreement. We had received initially the un-amended agreement stating the 2042 date. We now had the 2032 date. We reran it, and it produced a number of 38-odd million, as you can see.

MR. LAWRENCE: Now, in addition to calculating that loss, you also calculated a separate loss under the

contract, correct?

MR. SHAPIRO: You mean a separate loss to date?

MR. LAWRENCE: The cost of nonperformance, yes.

MR. SHAPIRO: Yeah. The--in other words, the unpaid amounts, as we would call them, between the date of Lehman's bankruptcy or the day of Lehman's last payment under the contract and what should have been paid. We did include that dollar amount, although I think we relied on the agency to provide us with those numbers.

MR. LAWRENCE: Okay. And what is the amount of the cost of nonperformance?

MR. SHAPIRO: 553,000 of additional loss.

MR. LAWRENCE: And then that results in a total loss of, adding those two numbers together?

MR. SHAPIRO: Okay. So, in other words, we'd add the 38 million, plus the 553, and, doing this in my head here, based upon what's in front of me on the screen really quickly, it comes to $38,560,427.

MR. LAWRENCE: Now, we've seen Mr. Tambe show a couple of times this chart that he described as reflecting your valuation. Do you recall seeing that in his opening?

MR. SHAPIRO: Yes.

MR. LAWRENCE: Okay. Can you explain--is this right? And, if not, why is it wrong?

MR. SHAPIRO: This is totally wrong way to think

about this agreement. What--as I started out to say, what you have to think about is where you're going to replicate, what the fixed rate you're going to get in the market would be. You don't look at what the series of hypothetical floating rates would be based upon projections off a forward curve.

If you did this, you would rapidly get into negativity, into negative interest rates, all over the place. We know from discovery that Lehman built in a spread--every dealer builds in a spread--when they entered into the agreement. We know that spread, in Lehman's original agreement, in 2002, was about 105 basis points. If you applied a spread of 105 basis points to LIBOR today--three-month LIBOR right now is at about 25 basis points--you would get to a--what does that work out to?--25 minus 105; you're going to get to something deep in negative interest rate territory.

So, this kind of analysis I see as an attempt to obfuscate. This is not a way to look at this agreement to try to see what was it that TSA lost when it lost the 4.484 fixed percentage agreement that it was guaranteed through 2032. Instead, what could it replicate of that? And, if you look at our analysis, it basically backs into a rate of about 61 basis points, is all you'd be able to get on a replacement reserve fund agreement. This would make it look

like you're getting negative interest rates on it, which is not accurate.

MR. LAWRENCE: So, when you say 61 basis points, you're--what do you compare that to in terms of the RFA?

MR. SHAPIRO: The--versus the 4.484 that was guaranteed under the Lehman agreement.

MR. LAWRENCE: So, can you tell me whether or not--is your loss valuation looking at those--the RFA contract and the hypothetical contract, and comparing the values discounted?

MR. SHAPIRO: That's basically what it's doing.

MR. LAWRENCE: Now, when you did your rebuttal report, you indicated that--this is Exhibit Y--you indicated that you rethought the CP spread component, correct?

MR. SHAPIRO: Yes.

MR. LAWRENCE: Tell us why and what you did in that regard.

MR. SHAPIRO: My impression was that, when Mr. Vergara originally did it, he had used the basis swap market to determine where a dealer would be able to lock in a CP spread. And I should--this is--I'm using lingo, so I want to try to put this, if I can, in layman's terms. If--

THE COURT: You don't have to put it in layman's terms. You're here as an expert.

MR. SHAPIRO: Okay.

THE COURT: You put it in whatever terms you want to put it in.

MR. SHAPIRO: Okay. Thank you very much.

THE COURT: All right?

MR. SHAPIRO: Thank you very much. The--when I talk about the basis swap market, I'm looking at how we lock in a spread between one basis or floating rate and another basis or another floating rate. The LIBOR swap is based upon the floating rate of LIBOR. To look at a swap where somebody is using CP as the deliverable, you want to look at whether or not you can lock in the spread over a long period of time between those two floating rates.

Luckily, there is a market where you can trade floating LIBOR for floating CP. And that's within the basis swap market. When we went back and looked to see where the number was obtained from, I looked, and, you know, using Bloomberg and using the inputs that they get, which are from the inter-dealer/broker Tullett Prebon, which is, you know, one of the most recognized on this, that the actual amount that you'd be able to lock in, if you were hedging, would be much less than that. And I have that in the rebuttal report if you can put that up on the screen.

MR. LAWRENCE: Sure. It should be up. Could you just go back? Sorry. You know the technology; I'm sorry. Okay, this is your rebuttal report, correct?

MR. SHAPIRO: Correct.

MR. LAWRENCE: Okay. And where is it that you talked about--

MR. SHAPIRO: It was towards the back. I think, if you could flip one more page for me, or maybe... one more still, please.

MR. LAWRENCE: Ah, now it's (indiscernible) 29.

MR. SHAPIRO: 29, okay. I was more verbose than I thought. I apologize.

MR. LAWRENCE: Oops.

MR. SHAPIRO: 29, if I can--yeah, there we go. So, if you look at it, when we looked at it, and I quote the Prebon page here, if you see this, it says, you know, "Bloomberg provides two screens that show the CP-to-LIBOR basis swap for nearby maturities." This was--we were looking for about 23 years, so they have one for 20 and one for 30. And I show the symbols that you use on that.

And the spreads at each of those were 2.63 basis points and 4.25 basis points. So, thus, for 23-year exposure, it's about 3.1 basis points of a pickup, not 66.6. So, if anything, we erred on the generous side there, on the high side.

MR. LAWRENCE: And why didn’t you make an adjustment based on that?

MR. SHAPIRO: You mean go back and amend and say

our claims should be--

MR. LAWRENCE: (indiscernible)--

MR. SHAPIRO: --higher still? There's a certain degree to which all of these factors are fungible, that is, when a dealer looks at each of the spread components, they're combining them together and looking at the issues of the--whether the credit spread, the profit spread. We didn't put in a separate element for costs here. We know there are costs which are dealer has on a four delivery agreement, four purchase agreement, which are more than what you have on a swap, that all of those are basically subsumed within the overall spread. So, I still felt like the overall spread was in a reasonably fair area.

MR. LAWRENCE: Now, you used the forward curve to do that CP spread, correct?

MR. SHAPIRO: No. The CP spread in the basis market, you--it does use the forward curve. If you look at the Bloomberg page on it, you'll see that there are different numbers for each point along the maturity spectrum. But, it's only a forward curve in the most general sense that you're looking at one curve for LIBOR and one curve for CP, and looking at what the spread would be between the two of them.

MR. LAWRENCE: Now you're using a different methodology than Mr. Curry and Mr. Hasterok, correct?

MR. SHAPIRO: Correct.
MR. LAWRENCE: Why is that?
MR. SHAPIRO: We thought this was the first choice, that the first thing you look at is how could you replicate this thing? And you know, in the absence of having a liquid, open market, we said, “How do we best come up with a replication?” And we thought this was a reasonable way to do it. You know, as I’ve testified in deposition, we looked at alternative methodologies as well.
MR. LAWRENCE: And, in terms of Mr. Gruer, how would you distinguish what you did and what Mr. Gruer did in terms of valuing this contract?
MR. SHAPIRO: Mr. Gruer did some things, which we thought were very unusual, and you know, not stuff which would be done in the market, and which were obviously, very favorable to Lehman. First was to use the agency, the idea of constructing an agency forward curve and believing that any banker dealer could ever do that because we had never ever seen that. And you know, and everything we’ve seen is that that’s not a hedgeable product to be able to provide.
MR. LAWRENCE: Well, it’s one of the eligible securities that can be delivered, so what’s wrong with using agencies to do your calculation?
MR. SHAPIRO: Short term agencies are ineligible deliverable. They’re down here in yield. Long-term

agencies are way up here in yield. There's a steep yield curve in there. He was making assumptions that because long-term agency yields are up here and short term yields are down there, that therefore, successive rolos--rollovers of agencies would be at higher and higher yields, until you get to effectively the forward curve implied by that high rate that's out there on long-term agencies. You know, it's a fine textbook theory, but it can't be used in practice.

MR. LAWRENCE: And why can't it be used in practice?

MR. SHAPIRO: There's no hedge market for that.

MR. LAWRENCE: So what's the important of a hedge market to the hypothetical dealer that's trying to price this contract?

MR. SHAPIRO: A dealer doesn't enter into these agreements on a speculative basis. They're not going to say that they're speculating about what's going to happen with interest rates. They lock in their risk, their profit on day one. They may continue thereafter to try to refine their hedges. We know from discovery Lehman did that, and we hear about this all the time from dealers. But on day one, they lock in every risk they can. They're not going to speculate on an agency curve that's totally un-hedgeable. They can hedge tra--they can hedge LIBOR. They

can hedge Treasury. They can hedge CP, but they can't hedge agencies.

MR. LAWRENCE: And you said, I think you said a couple of minutes ago that you've never heard of an agency being used as a pricing mechanism. Is that fair?

MR. SHAPIRO: Yeah, the market--it's, you know, this is a--this was, before the markets blew up, an established market. You had, as I said, CPFTAs and you had non CPFTAs. You didn't have a separate pricing for agency FTAs.

MR. LAWRENCE: Now, Mr. Gru--did Mr. Gruer's analysis, original, his original analysis, did that involve taking into account charges such as credit and profit, et cetera?

MR. SHAPIRO: He, yeah, he tried to minimize those, obviously, as much as possible. When you look at his report, he came up with a spread that was way lower than what Lehman, included, when they won the bid in competition in 2002.

MR. LAWRENCE: Well, originally he came up with a mid-market valuation.

MR. SHAPIRO: Correct.

MR. LAWRENCE: What is a mid-market valuation compared to your hypothetical valuation?

MR. SHAPIRO: It depends on whether you're doing

the mid-market before or after, including the deliverable spread that the agency or the CP spread. We start before we put the deliverable spread in. I'm not remembering whether Mr. Gruer did that or not. He may have put the deliverable spread in as part of his mid-market. What?

MR. LAWRENCE: But at some point, you understood that he did a revision to take into account profit and credit charge.

MR. SHAPIRO: Correct.

MR. LAWRENCE: What is your concern with how he determined the credit charge?

MR. SHAPIRO: His credit charge, he--that he determined is so low as to be almost laughable. His credit charge he put in there was, if you can pull up the number there, 16.9 basis points. We know Lehman's credit charge at inception in 2002 was about 67 basis points, and that that was, again, in a healthy market, without a credit crisis, when they were competing to win the business. In other words, they would win only if they got their prices low as possible. The idea that in March of 2009, when the market was totally shut down, when spreads on the bonds had gone through the roof, that the credit spread would now be--what is that, is a fraction of Lehman's original credit spread, that it would've--?

MR. LAWRENCE: Yeah, let's step back for a second

and--

MR. SHAPIRO: Yeah.

MR. LAWRENCE: --and work us through how you calculated the Lehman credit spread in 190--sorry, 2002 at the inception of the RFA.

MR. SHAPIRO: Yeah, in the--in what was produced, there was a, an exhibit which we're labeling here as KONHEIM 23, where it said the Lehman's traders included a credit charge of $4.5 million. That backs into a spread of 67 basis points. Basically, by using what I think all parties agree was the value of a single basis point at that point in time in 2002 on this contract.

MR. LAWRENCE: So, compare the market in 2002 to 2009 and how that would affect the basis points cha--the spread.

MR. SHAPIRO: Let, let's take some--you know, again, some common sense measurings of this. If tobacco spreads had quadrupled, which we could see that they had there, then Lehman's spread on this hypothetically would've similarly quadrupled. So, you would've gotten to something around the order of 250, 270 basis points had Lehman been in an active market at that period of time. We know there was no more Lehman, and Lehman was one of the, you know, one of the firms which was super competitive. We know there weren't competitors on this and we know the market

was dead. We have to imply a larger spread, a larger increase than would even be implied by that multiple. That's just a common sense way to look at credit spread.

MR. LAWRENCE: And in fact, you had mentioned this earlier in a reference paragraph 15 of your rebuttal report. You talked about some other examples of how institutions were affected by the credit spread. Can you go through that with us?

MR. SHAPIRO: Yeah, and you know, you can pick--I--we tried not to mine the data here for good examples. We tried to give good, fair illustrations of that. So I took the largest bank in the country, JP Morgan, and we could look at their CDS, their credit default swap, and look at what the spread was on that. And it increased over that same time period, from November '02 through March '09, from 74 and a half to 174 and a half, 134 percent. But you could say, okay, that's a financial company, we're in a financial crisis. Let's look at a non-financial. So we took one of the highest rated manufacturing companies that has an actively traded CDS, which is Proctor & Gamble, and their spread over that same time window went from 31 basis points to 118 basis points, almost 300 percent of it.

We wanted to look at the municipal bond market, to see if that was performing similarly. We looked at the benchmark index used by the bond buyer for revenue bonds

like this, and, you know, not looking at tobacco bonds, specifically, but all revenue bonds. And that went from 12 and a half spread to the Treasury to 206, 207, almost, spread to the Treasury, an increase of almost 1,600 percent.

And then, I wanted to look at, you know, AAA rated Harvard. I'm not saying because it's my alma mater, it's just a good one to pick on because it is a AAA rated institution, you know, an absolutely crystal clear credit. And they issued debt right around this time in '02, and they were actually 17 basis points lower in yield than the 30 year Treasury on 35 year debt, comparable in period of time. You know, that's due to the fact it was tax exempt as well as its excellent rating of being lower than the Treasury. In December of '08, they did a similar bond issue, 28 years, also tax exempt, but now, it's 271 basis points over the 30 year Treasury. This is, you know, great examples of how big the credit crisis really was, what was going on with credit spreads even absent these special treatment for tobacco.

MR. LAWRENCE: And that wouldn't have affected the hypothetical dealer that you were trying to model?

MR. SHAPIRO: Immensely.

MR. LAWRENCE: Thank you, Mr. Shapiro. I have nothing further right now.

THE COURT: Thank you. Mr. Tambe, do you want a few minutes or do you want to start right in?

MR. TAMBE: Just a couple of minutes and if we could go until 5:30, that'd be great.

THE COURT: Okay. I'm going to shelter-in-place here, if you don't mind.

MR. TAMBE: All right.

THE COURT: Would you like a break, Mr. Shapiro?

MR. SHAPIRO: I'm fine. Just if there's water, I wouldn't mind that.

THE COURT: Yes. Would somebody please give Mr. Shapiro some--

[BREAK]

THE COURT: --the good graces of our faithful court reporter here, she's willing to stick with us until six. I'm not encouraging you to take that long, but if we have to go over in order to conclude with Mr. Shapiro, I don't want you to feel rushed.

MR. TAMBE: Sure.

THE COURT: All right.

MR. TAMBE: Very good. Thank you, your Honor.

THE COURT: Thank you.

MR. TAMBE: Thank you. Good afternoon, Mr. Shapiro. You have a binder before you?

MR. SHAPIRO: Yes.

MR. TAMBE: Great. Let's start with your report. That's TSA Exhibit W. You'll have a W tab on it.

MR. SHAPIRO: Got it.

MR. TAMBE: And the first page of Exhibit W is a statement you attached to your September 2009 valuation, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: I believe you said on direct, you made a correction on that front page because you now had the 2032 date. Correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. You in fact got the 2032 date not on or about the date of this cover, you knew about the 2032 date back in 2010, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: That's three years before you put it in--

MR. SHAPIRO: Correct.

MR. TAMBE: --this document, okay. The document itself, the memorandum, September 10th, 2009, page two.

MR. SHAPIRO: Should I refer to anything in the binder or just look on that--?

MR. TAMBE: Whatever's easier for you.

MR. SHAPIRO: Okay.

MR. TAMBE: We'll probably talk about the

document. It's up on the screen. It's in the binder.

MR. SHAPIRO: Which tab is it in?

MR. TAMBE: It's right where you were. It's the very next page where you were.

MR. SHAPIRO: Oh okay. Thank you.

MR. TAMBE: This is all part of Exhibit W.

MR. SHAPIRO: Thank you.

MR. TAMBE: This is the memo that you prepared, right?

MR. SHAPIRO: That our firm prepared, correct. Well, yes.

MR. TAMBE: Okay. You testified earlier that you had Mr. James Vergara take charge, I believe is the phrase you used, right?

MR. SHAPIRO: Yeah, he was the person I assigned to work on this, that's correct.

MR. TAMBE: Okay. Did he prepare this memo?

MR. SHAPIRO: He prepared the first draft.

MR. TAMBE: There were a number of drafts of this document?

MR. SHAPIRO: Yes.

MR. TAMBE: And you've produced to us some of the documents where you offered comments, right?

MR. SHAPIRO: I believe we produced all of them.

MR. TAMBE: Okay, yeah. Turning to page three of

this document, you have, if you can highlight the calculation of loss and (indiscernible). You described on direct the different components and considerations that went into putting together this table, right?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. You've now testified that the point--66.6 percent spread to LIBOR was a mistake by Mr. Vergara.

MR. SHAPIRO: In retrospect, when I look at it, yes.

MR. TAMBE: Right. And in (indiscernible), when you and I first spoke about this matter at your first deposition, I asked you, "Did you put in the 66.6 because you were being generous to Lehman?" Do you remember that?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. And then, you told me, "No," it wasn't because you were being generous to Lehman, it's because you wanted to be absolutely accurate, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. But now, what you're telling the Court is, that's not absolutely accurate, that was a mistake. Correct?

MR. SHAPIRO: In retrospect, reexam--upon reexamination, yes.

MR. TAMBE: And in fact, your rebuttal report

says that the spread to LIBOR, if any, should be single digit basis points. Is that right?

MR. SHAPIRO: Yes, I--that's what I just testified.

MR. TAMBE: And it's your testimony, given all your experience on the swap market, that when you saw a number that was 20, 30 times what the right number should be, you didn't raise your hand and say a peep, right?

MR. SHAPIRO: Yeah, I wouldn't quite characterize it that way, but when I looked at it the first time, it didn't jump off the page at me.

MR. TAMBE: It looked reasonable to you when you saw it, right?

MR. SHAPIRO: The CP market at this time was very disjointed.

MR. TAMBE: Answer the question, sir. When you--it looked reasonable to you, did it not?

MR. SHAPIRO: Yeah, I'm trying to give you context on this.

MR. TAMBE: I want an answer to my question, not context.

MR. SHAPIRO: When I looked at it the first time, given how bad the CP market was, yes, it looked like it could be reasonable.

MR. TAMBE: And you just see it one time, you saw

it again and again and again, correct? There were multiple drafts of this document, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: And you changed other aspects. You changed the credit spread. You changed different calculations, but you didn't change the 66.6, did you, sir?

MR. SHAPIRO: No.

MR. TAMBE: Okay. Now you said, "Well, the upshot of all of this is, I've been obfuscating the record. It's not really negative interest rates." What you're really trying to say is, "There would be a new fixed rate of 61 basis points." Is that right?

MR. SHAPIRO: Correct.

MR. TAMBE: And that appears nowhere in this report. Does it, sir?

MR. SHAPIRO: No, because we're looking dollars. We weren't looking basis points.

MR. TAMBE: You were looking for dollars.

MR. SHAPIRO: No, we were looking to value it in dollars. We weren't looking for dollars.

MR. TAMBE: I believe you said on direct that the calculation that we'd put together, where you start with a three month LIBOR, do these adjustments is the wrong way of looking at it, right?

MR. SHAPIRO: The calculation--could you say that

again?

MR. TAMBE: Sure. Could you read that back, please?

CLERK: I believe you said on direct that the calculation that we'd put together, where you start with a three month LIBOR, do these adjustments is the wrong way of looking at it, right?

MR. SHAPIRO: Yeah, the--you shouldn't apply the adjustments to three month LIBOR.

MR. TAMBE: Okay. Could you turn--well, Mr. Vergara ran these calculations for you, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: He had the model, correct?

MR. SHAPIRO: He was the one who was running the model, yes.

MR. TAMBE: Right. And he chose the model to run, correct? You didn't tell him, "Go run this one versus that one?"

MR. SHAPIRO: No, I wouldn't tell him that no.

MR. TAMBE: Okay. So he picked the model, he ran the model, he came up with the numbers. You gave him some input on the assumptions, but he had control of the model, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. Well, let's go to Exhibit 52,

sir.

MR. SHAPIRO: Would that be Debtor's Exhibit 52?

MR. TAMBE: Debtor's Exhibit 52, yes. And you recognize this type of document, don't you, sir?

MR. SHAPIRO: Yes, I do.

MR. TAMBE: And there were several of these types of screenshots that were produced late in the litigation. Do you remember that?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. So let's look at this one, Exhibit 52, page two. This is the model that Mr. Vergara ran when you asked him to, when you asked him to take charge of this process, correct?

MR. SHAPIRO: No.

MR. TAMBE: He didn't run the Principia model?

MR. SHAPIRO: This is not the model. This is a one screenshot from one page.

MR. TAMBE: That's a screenshot of one page from that model.

MR. SHAPIRO: Correct.

MR. TAMBE: Not a different model?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay.

MR. SHAPIRO: This is a Principia screenshot.

MR. TAMBE: Okay. And you know that's the

software he used to do the calculations that underlie (indiscernible)--

MR. SHAPIRO: Yeah, it’s more than just soft, where it’s a big li--it’s a big modeling system that we license it.

MR. TAMBE: Okay. It’s--

MR. SHAPIRO: It costs us about $200,000 a year.

MR. TAMBE: Money well spent, sir. If you look at page two, the upper left hand corner, you’ve--Mr. Vergara has input, the details of the trade, correct?

MR. SHAPIRO: On this sheet, I believe not.

MR. TAMBE: Okay. Well, what is November 5, 2002 in the upper right hand corner? Is that not the start date (indiscernible)?

MR. SHAPIRO: November 5, 2002 was the start date, but no--but May 30th, 2032 was not the end date that Mr. Vergara knew.

MR. TAMBE: This is a model run by Mr. Vergara, is it not, sir?

MR. SHAPIRO: I don’t believe so, based upon that.

MR. TAMBE: Okay. It’s got Mr.--it’s got your name at the bottom. You see that?

MR. SHAPIRO: It does have my name on it.

MR. TAMBE: Okay. But you didn’t run it?

MR. SHAPIRO: I didn't run it. I don't know how to run this model.

MR. TAMBE: Okay. So someone in your office ran this model?

MR. SHAPIRO: Correct.

MR. TAMBE: Right. And the way they ran that model is, they put in November 5, 2002, they put in 30th May 2032, and they put in the notional amount to begin with, right?

MR. SHAPIRO: Right.

MR. TAMBE: Okay. The next thing they put in was a fixed rate. And if you could look at the middle of the page, there's fixed, and it says 4.484. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And then, further down, they have in the pay tab, some additional information, correct? And you recognize that information. It says, "US dollar, three month LIBOR." Do you see that? And now, if we could just increase the size of what appears next to that? Right? That's US dollar three month LIBOR plus minus 3.874. Is that right?

MR. SHAPIRO: Correct.

MR. TAMBE: That's what it says. That's where the model ran.

MR. SHAPIRO: That's where you put in the spread.

The only place you can put in the spread is in that box.

MR. TAMBE: So that's the spread you put in to get the number you got, right?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And you know that when you run this model, it generates cash flows, correct?

MR. SHAPIRO: It generates a value down at the bottom.

MR. TAMBE: Well, it also generates cash flows, doesn't it, sir?

MR. SHAPIRO: Do you know this model? Have you run it yourself?

MR. TAMBE: Well--

THE COURT: Mr. Shapiro.

MR. SHAPIRO: I'm sorry. I don't run this model. This is--the model produces an output, which shows you what the--and if you can take the blowup and not make it blown up anymore, you can see the output it produces.

MR. TAMBE: The person who--

MR. SHAPIRO: Look on the bottom of the page.

MR. TAMBE: Sure.

MR. SHAPIRO: You can see what it produces. It's not producing the cash flow, it's producing the net present value and the like.

MR. TAMBE: Yeah, and you just told me this is

just one page of the model.

MR. SHAPIRO: Correct.

MR. TAMBE: The model does a lot of other things that are very complicated, right?

MR. SHAPIRO: It's capable of doing very complex trend--complex analysis.

MR. TAMBE: An expensive model?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And Mr. Vergara ran the model, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Again, if he testified about what the model does, we ought to believe Mr. Vergara, right?

MR. SHAPIRO: I'm not going to speak for that.

MR. TAMBE: Let me get this right. You want us to doubt Mr. Vergara's voracity? Is that what you're saying?

MR. SHAPIRO: No, I'm not saying that at all.

MR. TAMBE: He's the guy who ran--

MR. SHAPIRO: Correct.

MR. TAMBE: --the valuation, right?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. You want us to believe him, right?

MR. SHAPIRO: He, you know, he testified--he's no

longer an employee of the firm, as you know. He did testify in deposition--I'm not going to speak to whether or not he made any mistakes in his deposition or anything like that. It's perfectly possible.

MR. TAMBE: Do you believe, as you sit here, sir, that he made any mistakes in his deposition?

MR. SHAPIRO: Do I?

MR. TAMBE: Yes.

MR. SHAPIRO: I haven't reviewed it thoroughly enough.

MR. TAMBE: So, sticking with the screenshots, let's look at Exhibit 50.

MR. SHAPIRO: 50.

MR. TAMBE: You can see it on the screen because it's been blown up on the screen. You there?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And you'll see that this model was run on March 30th, 2009. You see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And you recall--?

THE COURT: I'm sorry, Mr. Tambe. Where does it say that? That's at the bottom?

MR. TAMBE: It'll be at the bottom on the left hand side.

THE COURT: Entered at? Okay.

MR. TAMBE: Yeah.

MR. SHAPIRO: And I believe that doesn't necessarily mean it was run on that date. That means it-- when it was first entered. So like, it can be amended and the like. The one you've pointed to previously, I believe, it was clearly amended.

MR. TAMBE: And if you turn to page two of this model, of this screenshot? And again, let's increase the size on the upper left hand corner. That's come some tre-- trade details on it. You see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. It's got the start date. It's got the 2042 maturity date. You see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. And it's got a notional amount in there. You see that?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. You believe this is the one run by Mr. Vergara?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. But, if you go down to the pay column, the paid box, that has, again, US dollar, three month LIBOR, but it has minus 1.5 percent. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: That's minus 150 basis points.
MR. SHAPIRO: Correct.
MR. TAMBE: And that's about one half the adjustment that was made in the other model that we were just looking at.
MR. SHAPIRO: Correct.
MR. TAMBE: Okay.
MR. SHAPIRO: In other words, this can be run with many scenarios.
MR. TAMBE: Well, we're just looking at the scenarios you ran, Mr. Shapiro.
MR. SHAPIRO: I didn't run it.
MR. TAMBE: Your staff. By the way, in the page that you've--the screenshots that you've produced to us in this litigation, does it say 61 basis points on any of these screenshots, sir?
MR. SHAPIRO: I don't believe so.
MR. TAMBE: It doesn't say that?
MR. SHAPIRO: That's--
MR. TAMBE: And you've given us not calculations or spread sheets that actually show how you arrive at your 61 basis points testimony that you just gave, right?
MR. SHAPIRO: I haven't given you a spreadsheet, no.
MR. TAMBE: Okay. And you haven't told us

anywhere how you would discount cash flows based on 61 basis points, have you, sir?

MR. SHAPIRO: No.

MR. TAMBE: If you were to do it, you'd do it using LIBOR, correct?

MR. SHAPIRO: I would do it using some base off of LIBOR, correct.

MR. TAMBE: Well, if you were running a model with a 61 basis point spread, what discount rate would you use?

MR. SHAPIRO: 61 basis point was not a spread in our discussion.

MR. TAMBE: Just a level.

MR. SHAPIRO: Right.

MR. TAMBE: Okay. So how would you discount that cash flow?

MR. SHAPIRO: The question is, you could--you would have to look at are you going to discount it at that rate, at the 61 basis point rate? Would you discount it at a higher rate than that? The question of what discount rate you use is not a simple question.

MR. TAMBE: The answer that I'd like from you is, what rate would you use?

MR. SHAPIRO: What rate would I use--

MR. TAMBE: Yeah?

MR. SHAPIRO: --on discounting, on that?
MR. TAMBE: Yeah.
MR. SHAPIRO: I'd have to give it more thought.
MR. TAMBE: So as you sit here today, having just told the judge that really what you were doing in your report is coming up with a 61 basis point fixed rate, you've given no thought to how that ought to be discounted for purposes of making a calculation?
MR. SHAPIRO: No. What I was saying is, to try to make it so you understand what's happening, you're trying to come back to what is a replacement rate? What's the hypothetical replication? And that's basically what it backs into.
MR. TAMBE: In--
MR. SHAPIRO: Interestingly, of course, that's similar to what the others have come up with when they looked at the actual cash flow losses. It verifies.
MR. TAMBE: Right, because you come up with a--effectively, a flat rate of 61 basis points. They used 65 basis points. Right?
MR. SHAPIRO: Okay. Very close.
MR. TAMBE: Yeah. And that's coincidence, again?
MR. SHAPIRO: It's not coincidence. It's reaffirming. When different methods produce similar results--

THE COURT: Okay. Mr. Shapiro--

MR. SHAPIRO: Oh sorry.

THE COURT: Okay. The rules of the road are, when there's a question, you answer it, and then you stop. Okay? Thank you.

MR. SHAPIRO: Thank you. Sorry, your Honor.

THE COURT: No problem.

MR. SHAPIRO: I get excited on these things.

THE COURT: Me too.

MR. TAMBE: Just some basics. I mean, we--there are, from the TSA side, two different ways of looking at this, correct, that have been presented as expert testimony, correct?

MR. SHAPIRO: There have been two different ways presented as expert testimony, correct.

MR. TAMBE: And just to be clear, your position was, in September 2009, and remains, that the broadly accepted methodology is the one of treating this like a swap and valuing the cash flows, correct?

MR. SHAPIRO: It's always been the way it's been done historically.

MR. TAMBE: And when you do it that way, you would use the LIBOR curve for discounting purposes, correct?

MR. SHAPIRO: Or a spread to the LIBOR curve.

MR. TAMBE: In the models that were run here, right, the Principia screenshots, Exhibit 50, Exhibit 51, what discount rate did you use?

MR. SHAPIRO: I can't tell by looking at this.

MR. TAMBE: And because you've produced all the backup documentation, there is no other document at Swap Financial Group that tells us what discount rate you used?

MR. SHAPIRO: We--if we wanted to, we would be able to go into the model and ask it, you know, show--ask it to display the discount rate.

MR. TAMBE: I believe you were asked to produce all documents that back up your calculations.

MR. SHAPIRO: We hadn't--we--that would be asking us to create a new document.

MR. TAMBE: So that--so asking for a screenshot from the model that you used to come up with your valuation of the claim on this court, would be asking you to create a new document?

MR. SHAPIRO: True.

MR. TAMBE: Is that your testimony, sir?

MR. SHAPIRO: My testimony is what you asked me, which is, if you wanted to get a printout of the discount rate, you'd have to request a different report. We had not done that. You would be creating a new report.

MR. TAMBE: So you understood that documents were

requested from Swap Financial Group for all documents that back up or support the opinions you're expressing in this case. You know that, right?

MR. SHAPIRO: Of course.

MR. TAMBE: And there were certain documents that were withheld for a period of time. You remember that, right?

MR. SHAPIRO: There was a privilege log and the like.

MR. TAMBE: Yes.

MR. SHAPIRO: Yes.

MR. TAMBE: And you recall at some point, you were told, some of those documents that were withheld, they're going to have to be produced, correct?

MR. SHAPIRO: Your--are you asking me if I was aware that there was a legal issue about--

MR. TAMBE: Yeah.

MR. SHAPIRO: --what needed to be produced? Yes. It wasn't like we were withholding documents.

MR. TAMBE: And when you did that, when you went back and said, "Okay, we're producing some documents," you produced the screenshots. You chose to view that as simply producing what you already had printed out?

MR. SHAPIRO: I, I'm not sure if I'm following your question.

MR. TAMBE: Well, the distinction you made is, because the other screens that might show the discount rate you used weren't printed out, you'd have to print them out, you didn't produce them, were these printed out?

MR. SHAPIRO: That's not correct, no. I didn't say that it--what--about printing it out. It's where the report would be produced. The--you can--in Principia, you can report, produce hundreds of pages of reports for any type of transaction. You can produce curves on it. You can produce, you know, MPE charts. You can produce all sorts of things. But you're asking, could we produce something? Yes, of course, we could produce it. Did we withhold it? No.

MR. TAMBE: Well, let's just go through this. You could produce it, yes?

MR. SHAPIRO: We could create it.

MR. TAMBE: Right. And it's in the model, the model you ran, correct?

MR. SHAPIRO: The mode is capable of creating it. It is not in the model.

MR. TAMBE: Right. And so, when you produced these screenshots, you asked the model to give you something to print out. Correct?

MR. SHAPIRO: We asked the model for the thing we needed for the--what we were trying to determine, which was

the te--the value of this contract.

MR. TAMBE: Your Honor, we have continuing objection to any opinions being expressed by Swap Financial Group. There has been an incomplete production of basic, fundamental calculations.

THE COURT: Well, let me try to understand this a little bit. Does the valuation produced by Swap Financial as an expert opinion in this matter, matter, include a discount rate? Does it involve a discount rate?

MR. SHAPIRO: It uses a discount rate to make calculations.

THE COURT: Okay. And the question that counsel is trying to get at is, where is there any document that shows, reflects, includes that discount rate? Because the screenshots that have been produced from the Principia model, Principia model, don't show it. Is that, Mr. Tambe--?

MR. TAMBE: That's the question, your Honor.

THE COURT: That's the question. So nobody's asking you to make something up. Under the discovery rules and the rules surrounding the testing of an expert opinion, the expert is required to produce all of his or her work papers and any facts and information on which his opinion is based. And what Mr. Tambe is asking you is, where can we see that discount rate? Because if he can't see it, he

can't question you about it, he can't ask you, "Why'd you pick that number as opposed to another number?" So, I, frankly, do not understand, either. Mr. Lawrence?

MR. LAWRENCE: I appreciate that Mr. Shapiro's not remembering, but he was asked and answered this question at a deposition, and he did explain what the discounted rate was. Mr. Tambe, I'm sure, is aware of that.

THE COURT: Okay. But we're talking about a different thing right now.

MR. LAWRENCE: I understand that.

THE COURT: We're talking about no screenshot, other documents, anything that reflects that.

MR. LAWRENCE: Right. It's embedded in Principia, which is the vendor (indiscernible)--

THE COURT: Okay. So in--right. Okay. Well, that's where we're having a non-meeting of the minds.

MR. LAWRENCE: I understand that.

THE COURT: If something, to be simplistic, okay, you can click on little Excel cells, right, and things pop out and they expand it. There's a similar function in here, where if you could click on the screen and show the discount rate and how you can manipulate--manipulate's a poor word--adjust the discount rate, that's all we're trying to find out. So we--

MR. LAWRENCE: Two things.

THE COURT: Okay.

MR. LAWRENCE: First of all, I appreciate that.

THE COURT: I'm not trying to testify.

MR. LAWRENCE: I know.

THE COURT: I'm not asking you to testify.

MR. LAWRENCE: I don't--I'm not--

THE COURT: I'm just trying to resolve this question.

MR. LAWRENCE: I'm not going to testify. Two things: first of all, you did testify about it. It's embedded in the system. He didn't enter it into the system. Principia has it. But, the other problem I have is that if--

THE COURT: See, I don't understand that. I don't understand that statement. And I don't want to keep this dialogue going.

MR. LAWRENCE: Can I make one other point?

THE COURT: Yes.

MR. LAWRENCE: Is that if they had asked for us to do--like they asked for us to recreate screenshots, and we recreated screenshots for them, they wanted this piece of information, they should be raising it before today. I don't believe that they asked for the embedded interest rate specifically at any time before today.

MR. TAMBE: Well, you know what we heard the first time, (indiscernible) your Honor? 61 basis points.

THE COURT: Okay. We're going to take a break. Okay? And I'm going to talk to the two of you, all right? So let's go to my conference room. All right, let's resume, please.

MR. TAMBE: Going back to your expert report of Exhibit W, PSA W. On page two, under "Charges for municipal tobacco credit," if you could just highlight those two paragraphs? This is, in your report, the discussion about what the bond spread is on the TSA's bonds, correct?

MR. SHAPIRO: This is looking at the charge we applied for the valuation to--for the agreement. It's deriving it from the bond spread.

MR. TAMBE: Well, it's deriving it from the bond spread, and I believe, applying it directly to your valuation, correct?

MR. SHAPIRO: That is correct.

MR. TAMBE: Right. It's not like you got a bond spread and then you discounted the bond spread in some way and said, "Okay, now we're going to use this credit spread for the valuation," right?

MR. SHAPIRO: That's correct. You've got it right.

MR. TAMBE: All right.

MR. SHAPIRO: Yeah.

MR. TAMBE: And just so we're clear, the bond spread--I think you described this before--was, if I'm an investor and I'm lending money to the TSA, I lend you $1,000 and you're a bad credit risk, I got to figure out, am I going to get that $1,000 back, right?

MR. SHAPIRO: That was one of the prior experts, but it's been a long day.

MR. TAMBE: Okay. I'll point in that direction, right. Isn't that right? That's with--what the bond spread is about?

MR. SHAPIRO: The bond spread is a--yeah, a reflection of what the market is demanding for a concern about credit worthiness, about the risk of non-repayment.

MR. TAMBE: The risk of non-repayment, right.

MR. SHAPIRO: Right.

MR. TAMBE: And the risk of non-repayment, in an RFA, is a little different than in a bond, correct?

MR. SHAPIRO: Absolutely.

MR. TAMBE: Absolutely, right?

MR. SHAPIRO: Absolutely.

MR. TAMBE: Okay. And it is absolutely different because, from the dealer's perspective, the risk of nonpayment arises in a couple of scenarios, correct?

MR. SHAPIRO: You have to describe what--

MR. TAMBE: Okay. So one of the scenarios in which it arises is interest rates have risen tremendously, right? So, the dealer is making lots of money on high interest rates, but only paying 4.484 percent to the TSA. Correct? That's one scenario where you have exposure to--

MR. SHAPIRO: I would explain it a little bit differently, but it is--

MR. TAMBE: I know you would, but you agree with my explanation?

MR. SHAPIRO: I do not agree with your explanation. But in that high rate environment, you are correct. That is, the dealer would have--would experience a loss in a high rate environment.

MR. TAMBE: Now, well, it would only experience a loss in that high rate environment if, when rates were high and when the dealer was in the money, then, the TSA defaulted at that point in time, right?

MR. SHAPIRO: Yeah, he's not going to experience a loss without a default.

MR. TAMBE: Right. So, and I believe we've discussed this before, you have not analyzed any correlation between the likelihood of tobacco bonds defaulting and what the interest rate environment is. Those things are independent.

MR. SHAPIRO: You're asking two questions. You're asking if I'd--

MR. TAMBE: Right. So if one--

MR. SHAPIRO: --analyzed it and whether it's independent. Which do you like, want me to answer?

MR. TAMBE: Fair question. You don't include, in your expert report, any analysis showing any correlation between tobacco credit worthiness and interest rate risk.

MR. SHAPIRO: We do not.

MR. TAMBE: Okay. And the other way a dealer is exposed to a potential loss is not when there's a default or bankruptcy by the TSA, but there's a turbo payment, there's a mandatory cleanup call, right?

MR. SHAPIRO: To the extent that the dealer would face an early termination because of that, yes, he could be exposed to loss.

MR. TAMBE: Right, because in this deal, unlike others, in this deal, if that happens, even if the dealer's in the money, the dealer doesn't have to be paid by the TSA.

MR. SHAPIRO: That's correct.

MR. TAMBE: Right.

MR. SHAPIRO: It's a par call.

MR. TAMBE: Right. So again, that's a circumstance that's independent, off the TSA's credit

worthiness, right?

MR. SHAPIRO: That is.

MR. TAMBE: Okay. The extent to which a dealer is exposed to that second risk, the mandatory cleanup call risk, that is correlated to something we've discussed today, right, is how quickly the bonds are being paid off?

MR. SHAPIRO: It literally is that.

MR. TAMBE: It literally is that, right?

MR. SHAPIRO: Yes.

MR. TAMBE: And whatever that risk was, there was less of the risk--there was less of a risk of the bonds being paid off early in 2009 as compared to 2002, correct?

MR. SHAPIRO: The estimates at the--in 2002, for when the bonds might be called, you know, by the consultants who did the bonds, projected at one day by 2009, they projected it at a later date. Now, was it--you know, to look at this correctly, Mr. Tambe, you'd have to say--

MR. TAMBE: Can I just get an answer to my question?

MR. SHAPIRO: Well, I--

MR. TAMBE: The risk was lower in 2009 compared to 2002, correct?

MR. SHAPIRO: There are two ways to look at it. If I can--

MR. TAMBE: Well, can you answer my question?

MR. SHAPIRO: Yeah. I'm going to give it to you. In 2002--

MR. TAMBE: You're going to give it to me, but--

MR. SHAPIRO: No--

MR. TAMBE: Go ahead. I'm sorry.

MR. SHAPIRO: Excuse my expression, your Honor. I'm going to give you the answer. In 2002, the earliest (indiscernible) I'm recalling was 2017, 15 years off.

MR. TAMBE: I believe that's right.

MR. SHAPIRO: Yeah, in 2000--so, it's 15 years off. In 2009, the earliest (indiscernible) date I think was then 2019 or 2021. So in other words, it was actually fewer years off, so you could, you know, you could look at it one way or the other.

MR. TAMBE: Well, you could look at it one way or the other, but your co-experts, Curry and Hasterok looked at that precise issue, and they determined, given where tobacco markets were and tobacco bond issuers were, the right thing to do was value this all the way out to 2032. Do you recall that testimony, sir?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And--

MR. SHAPIRO: That's not the same question I answered, however.

MR. TAMBE: No, it's not. But it's also an analysis that doesn't appear in your report. You did not look at maturities, they did, right?

MR. SHAPIRO: I did not look at maturities dated?

MR. TAMBE: No part of your report looked at this mandatory clean up call option and analyzing whether it's going to happen in 2019 or 2025 or 2032. Both your original report and your amended report went all the way out to state of maturity, right?

MR. SHAPIRO: We--no, we looked at the fact that the dealer is obligated through 2032.

MR. TAMBE: And that's what you used.

MR. SHAPIRO: Correct.

MR. TAMBE: Right. The folks who analyzed that particular aspect off the mandatory cleanup call were the other folks, Mr. Curry and Mr. Hasterok, right?

MR. SHAPIRO: I can't say that.

MR. TAMBE: Well--

MR. SHAPIRO: I can't--

MR. TAMBE: I think you were sitting here when they testified, right?

MR. SHAPIRO: I was, but I can't testify to what they analyzed.

MR. TAMBE: Okay. So if it's in their report, it's in their report, right? Okay.

MR. SHAPIRO: It speaks for itself.

MR. TAMBE: And you'd defer to them on that analysis, right?

MR. SHAPIRO: I would say the report speaks for, and their testimony speaks for itself.

MR. TAMBE: Your rebuttal report, Exhibit Y.

MR. SHAPIRO: It's Debtor's Exhibit 1?

MR. TAMBE: No, it's Y--

MR. SHAPIRO: Oh, Y, oh, Y, okay.

MR. TAMBE: It's TSA Y.

MR. SHAPIRO: Okay, sorry.

MR. TAMBE: On paragraph 14 of that rebuttal report, I think it's a paragraph we--you were discussing on direct a few minutes ago, 14.

MR. SHAPIRO: Correct.

MR. TAMBE: Down at the bottom. So one of the points you make in the rebuttal report is, Gruer's got to be wrong. He's come up with 16.9 basis points in 2009, when at inception, Lehman had a credit charge of 67 basis points. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And the document you cite to is a document that was discussed in Mr. Konheim's deposition, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. And you were not present, I believe, when Mr. Konheim testified?

MR. SHAPIRO: I was not present.

MR. TAMBE: But the document you're referring to is a document that you say includes a credit charge of 4.5 million, right?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. And the fact of the matter is, sir, you don't know what percentage or portion of that $4.5 million number that you're referencing there is a credit charge as opposed to a charge for the mandatory cleanup call option. Isn't that right?

MR. SHAPIRO: I believe it was identified as a credit charge.

MR. TAMBE: Okay. Now, the documents say otherwise the documents controlled, right?

MR. SHAPIRO: Yeah, if you can point to it, we can take a look together.

MR. TAMBE: Oh sure. We can do that. So Exhibit C, the TSA Exhibit C. If you don't have it, it'll be up on the screen, I believe. And if that's a--if that's not easy for you to follow, let's--can we increase the size? Right. And you'll see that that document I'm showing you, Exhibit C, that's got Exhibit 23 written on it. Do you see at the bottom?

MR. SHAPIRO: Yes.

MR. TAMBE: Right, the yellow sticker? That's an old sticker from the deposition. That's the document you were talking about in your expert report, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: And the $4.522 million is that third line that appears on that document, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: Okay. And you saw the word credit mitigation option there and concluded that that's a credit charge, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. So now, let's take a look at TSA Exhibit B. And again, the email at the top, and it's the second sentence. And the line that's highlighted states, "In addition, to mitigate the credit risk involved in the tobacco deals as well as the mandatory cleanup call, we will book a credit mitigation option saved as Washington TOB in (indiscernible)." Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. One of the things I wanted to discuss with you were some of the iterations of the expert report, the valuation report. So, Exhibit W, the--that's the report that goes in, the calculation that goes in as part of the proof of claim, correct?

MR. SHAPIRO: Correct.
MR. TAMBE: And there is a--there's an adjustment to that to account for 2032 and not 2042, right?
MR. SHAPIRO: That's correct.
MR. TAMBE: But as we discussed earlier, that was in a series of drafts that you exchanged with Mr. Vergara, correct?
MR. SHAPIRO: That I reviewed with Mr. Vergara, yes.
MR. TAMBE: That you reviewed with Mr. Vergara?
MR. SHAPIRO: Yeah.
MR. TAMBE: So let's go to Debtor's Exhibit 47. And you recognize this, sir, as one of the early drafts of Mr. Vergara's work, correct?
MR. SHAPIRO: Can you give me a minute?
MR. TAMBE: Sure.
MR. SHAPIRO: Yes, I do.
MR. TAMBE: And if you look at the date, March 30th, 2009, one of the screenshots we looked at had a date of March 30th, 2009. Do you remember that?
MR. SHAPIRO: Yes.
MR. TAMBE: Okay. Are you aware of any screenshot evaluation that was done prior to March 30th, 2009? Let me withdraw that. Are you aware of any screenshots for a valuation prior to March 30th, 2009?

MR. SHAPIRO: I'd have to go through the pile of screenshots that we produced. I don't--I didn't memorize the dates of them.

MR. TAMBE: Okay, all right. And you will see in this draft, as you go to page two, and it's the sec--it's the first full paragraph, "Over the past 12 months."

MR. SHAPIRO: Right.

MR. TAMBE: You will see a discussion of the widening of spreads on tobacco bonds. Do you see that?

MR. SHAPIRO: I do.

MR. TAMBE: That description, those seven lines, I believe, don't change at all, as far as I can tell, between that draft and the September draft. Correct?

MR. SHAPIRO: Correct. I don't think the market conditions had changed between those drafts. Yeah, no, this is historical. That would not have changed.

MR. TAMBE: Can you just read back the last answer? I lost the last.

CLERK: I don't think the market conditions had changed between those two drafts. This is historical. That would not have changed.

MR. TAMBE: And this is the first draft that comes to you from Mr. Vergara, correct?

MR. SHAPIRO: I'd have to go through to see if it was the first. It was--you know, it's one that's dated

March 30th. I'd have to refresh to look at all the other drafts, but it was clearly an early version.

MR. TAMBE: The reason I'm asking is, this wording on how tobacco bonds were doing is not your wording, it's Mr. Vergara's wording, right?

MR. SHAPIRO: I believe so.

MR. TAMBE: Okay. And you will see in this draft, as you go down, the very next paragraph talks about the widening. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Right. And then, it doesn't talk about the commercial paper curve at all, correct?

MR. SHAPIRO: It--the commercial paper curve is not described in here, no. It's elsewhere.

MR. TAMBE: I mean, the bottom line for this particular draft is LIBOR minus 1.5 percent, correct?

MR. SHAPIRO: That was the number that Mr. Vergara put in. You know, there's a subsequent version of this that I know you've seen because we've produced it, where I commented questioning that spread.

MR. TAMBE: Okay. And we have seen that version, right?

MR. SHAPIRO: Yeah.

MR. TAMBE: But initially, Mr. Vergara, who you say, who you asked to take charge of this project and do

the valuation, the draft he produces has the discussion about the bond market, tobacco bond market. And the input he puts in is LIBOR minus 1.5. Do you see that?

MR. SHAPIRO: It's right there.

MR. TAMBE: And it matches up with the screenshot we saw earlier, the March 30th, 2009 screenshot, which had the US dollar three month LIBOR curve minus 1.5 percent, right?

MR. SHAPIRO: It does.

MR. TAMBE: Okay. And the next paragraph, on this particular document is the bottom line. It's the output, we presume, of his model. And it says it's $23.6 million, right?

MR. SHAPIRO: That's what it says.

MR. TAMBE: And that's out to a maturity of 2042, right?

MR. SHAPIRO: Yes.

MR. TAMBE: So if that model had been run to a maturity of 2032, the right maturity, it'd be a lot smaller number, correct?

MR. SHAPIRO: It would be somewhat smaller.

MR. TAMBE: Okay. Well, your number dropped, I believe, from $48 million to $38 million?

MR. SHAPIRO: I think it's $47 to $38, wasn't it? Do you have--if you have the number in front of you, so--

MR. TAMBE: So do you think you'd have a comparable loss if you ran this model out to 2032?

MR. SHAPIRO: Percentage, in proportionate terms.

MR. TAMBE: Now, this document and this bottom line, if you look at Exhibit 45, Exhibit 45 in the binder.

MR. SHAPIRO: That's Debtor's Exhibit 45?

MR. TAMBE: Just one second.

MR. SHAPIRO: All right.

MR. TAMBE: 40. Can we start with 40?

MR. SHAPIRO: Sure.

MR. TAMBE: Sorry. Exhibit 40 is the declaration that you submitted in Bankruptcy Court on January 14th, 2009, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And it was in connection with some motion being filed by the TSA to reject or assume the contract, correct?

MR. SHAPIRO: I believe so.

MR. TAMBE: And if you go to page three of this document, you will see in paragraph seven, you state, "As of January 12th, 2009, LBSF was out of the money under the RFA. And if the RFA was terminated on January 12th, 2009, the termination amount owed to TSA under the RFA would be roughly $27.5 million." Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Who did that calculation?

MR. SHAPIRO: James would've--Mr. Vergara would've done that calculation as well.

MR. TAMBE: Now, do you know that no screenshot has been produced from Principia backing up that number, sir?

MR. SHAPIRO: I didn't know that.

MR. TAMBE: Is there some reason why there may not be a screenshot for this valuation?

MR. SHAPIRO: Yes.

MR. TAMBE: And what would that reason be?

MR. SHAPIRO: That it was copied over. You know, like the other one you saw that had the 2032 date, on that was clearly copied over. Somebody put the 2032 date in there subsequent. You asked if Mr. Vergara had created that one. He never knew of a 2032 date, as far as I know. So someone else had done that.

MR. TAMBE: So just so I understand how this system works, because you've produced a lot of different screenshots, yeah?

MR. SHAPIRO: A lot.

MR. TAMBE: And so, the system, whatever it is preserves some of the assumptions that you make when you run the model at different times. You ran the model for 27.5, but it didn't save that one. Is that right?

MR. SHAPIRO: Apparently.

MR. TAMBE: Okay. Do you know why not?

MR. SHAPIRO: I assume someone wrote over it. I'm just--I don't operate this system, so I'm just assuming that it works like any other system where you can override.

MR. TAMBE: But you--that's kind of a guess, right, because you don't know whether Mr. Vergara overrode the 27.5?

MR. SHAPIRO: I do not know that.

MR. TAMBE: And he didn't override all the other scenarios, and nor did any of your other staff members, correct?

MR. SHAPIRO: No.

MR. TAMBE: This is, I think, what, 16 different versions you have produced?

MR. SHAPIRO: Yeah, we've produced a ton of stuff, as you know.

THE COURT: Can I ask one clarifying question? Is this 27.5 in Debtor's 40, is that a termination amount based on the 2032 maturity date or the erroneous 2042 maturity date?

MR. SHAPIRO: I believe, at the time of this, that we didn't know the 2032 date. So this would've been, you know, in a different interest rate environment, with assumptions which still hadn't been fully refined. It

would've been--if you notice, it uses the word roughly, you know?

THE COURT: But, if it is whatever model was run to generate this number or whatever analysis was done to generate this number, it assumes a 2042 end date.

MR. SHAPIRO: I believe so. That's logical.

THE COURT: Thank you.

MR. SHAPIRO: And of course, your Honor, this is not the claim itself or the loss calculation. This was for another purpose.

MR. TAMBE: And now you've heard some of the fact witnesses that this was an anxious time for the TSA, correct?

MR. SHAPIRO: It was an anxious time for a lot of people.

MR. TAMBE: Right. And you've seen from some of the discussions that in September, October, November, December of the TSA's being told by PFM, its longstanding FA, this is a million dollars one way, a million dollars the other way, right?

MR. SHAPIRO: I've seen some PFM information. I don't know exactly what they told them at various times. I've just seen a couple of exhibits.

MR. TAMBE: Okay. And you get retained some time in December of 2008, correct?

MR. SHAPIRO: I've testified to that already.

MR. TAMBE: And you submit in January a document with the Court saying, "It's going to be a 27.5 million claim if it was terminated on January 12th," correct?

MR. SHAPIRO: I'd say roughly, yes.

MR. TAMBE: Okay. That must've been welcome news to the TSA.

MR. SHAPIRO: Are you--your Honor, I sometimes feel like he's trying to put words in my mouth, you know?

THE COURT: No.

MR. SHAPIRO: Okay. That must've been welcome news to the TF--is that a question?

MR. TAMBE: Well, were they disappointed when they heard that the claim amount wouldn't be a million dollars but it would be $27.5?

MR. SHAPIRO: Were they disappointed?

MR. TAMBE: Yes.

MR. SHAPIRO: I think they wanted accuracy just like we want it.

MR. TAMBE: Right. And I take it they thanked you for your accuracy when you provided them with that $27.5 million number?

MR. SHAPIRO: I don't recall anybody thanking anybody.

MR. TAMBE: Okay. So now, let's go to Exhibit

45. Could you keep it off for just one second? Just one question before we get to 45. Things got better or worse for the TSA from January to March of 2009?

MR. SHAPIRO: Better or worse in what regard?

MR. TAMBE: Did interest rates fall further?

MR. SHAPIRO: Does that make it better or worse? I'm trying to figure out where you're--

MR. TAMBE: Were they more in the money or were they more out of the money?

MR. SHAPIRO: Well, interest rates, I--my recollection is that the--that 30 year interest rates reached their low point in December of 2008, and then they came back a little bit in the first quarter of 2009. If we, you know, looked at where the 30 year Treasury is, and I'm doing this from memory, but I do memorize these numbers pretty well, the 30 year Treasury was in the 400 to 450 range in September. It got down to around the 250 range in, I think the low point was mar--was December 18 or 19. And then, it was back up in the threes by January through March.

MR. TAMBE: Right. And when you say in the threes, it was--the 30 years was wielding three percent on an annual basis in March of 2009?

MR. SHAPIRO: In the threes, we begin with a three. It could be three plus.

MR. TAMBE: Okay. So now let's go to 45.

MR. SHAPIRO: 45.

MR. TAMBE: We're going to focus really on the first page. Let's start from the bottom of the page and move up. And feel free to read the rest of the email. If you need time, just let me know.

MR. SHAPIRO: It's a--this is a sequence of emails that I--it looks like, that goes backwards, as most email transcripts go, correct?

MR. TAMBE: That's right.

MR. SHAPIRO: Okay. And you're just pointing to particularly the stuff on the first page?

MR. TAMBE: That's right.

MR. SHAPIRO: Okay.

MR. TAMBE: Now at the bottom of the page, Mr. Cook ask you, "Now that we have clarity on these dates, can you proceed with calculations? Do you need anything else from us at this time? Thanks." Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And that's sent on Friday midday. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: You respond on Monday March 30th saying you're traveling, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: But you say, “James is working on it, and we should have something to you shortly.” Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. Now at the top of the page, there’s the email from James Vergara to the TSA setting out his calculations, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: And the number he reports to the TSA for a March 25, 2009 termination is $23.6 million?

MR. SHAPIRO: Correct.

MR. TAMBE: That’s lower than the number you had filed with the court in January, correct?

MR. SHAPIRO: The $27.5 million--

MR. TAMBE: Yeah.

MR. SHAPIRO: --approximation? Yes.

MR. TAMBE: Right.

MR. SHAPIRO: Yes.

MR. TAMBE: And there’s no explanation that goes with what Mr. Vergara has said to the TSA, he just reports a number, correct?

MR. SHAPIRO: That’s what it appears.

MR. TAMBE: Now let’s go to Exhibit 48. And you’ll recognize this as an email exchange that you have with Mr. Vergara about the draft document?

MR. SHAPIRO: Correct.

MR. TAMBE: And you'll see at the bottom of that page, March 30th, the email from March 30th, 2009. That's the same day that Mr. Vergara has provided the number to the TSA, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: But what he sends you is the document we were talking about a few minutes ago, Exhibit 47. He sends you his work product?

MR. SHAPIRO: I believe so.

MR. TAMBE: Yeah. That's got the spread to LIBOR all in 150 basis points, right?

MR. SHAPIRO: I believe so.

MR. TAMBE: And Exhibit 48, there's no response from you, at least in this email chain to Mr. Vergara until about three weeks later, April 19th.

MR. SHAPIRO: I believe I was traveling.

MR. TAMBE: And then, on April 19th, you provide some comments, and you say you made a bunch of changes, which you did (indiscernible). Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And if we look at the attachment to this email, you will see those--that's your la--that's your comments laid over Exhibit 47 with some edits and comments. Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay, all right. I'm looking at the last page of this exhibit, the second to last paragraph. You've got these score--square bracketed sentences. Those are your comments, right?

MR. SHAPIRO: I believe so, yes.

MR. TAMBE: Okay. Now you have a comment toward the bottom, towards the end of that paragraph that says-- right after he says, "LIBOR minus 150," "Whoa, how do you even get to this number?" Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: And you go on to say, the last sentence of that comment, "Everything up to this point seemed thoroughly reasoned and good, but you lose me here," right.

MR. SHAPIRO: That's what it says.

MR. TAMBE: And so, you were paying attention to Mr. Vergara's analysis, the assumptions, how he was building the model out, right. Let's go to Exhibit 48, sorry, 49. And that you'll see, is an email from Mr. Vergara on 4/21, two days later, with a revised document, correct? And if you go to page--

MR. SHAPIRO: Yes. Yes, sorry.

MR. TAMBE: That's okay. Go to page two of that document. And if you can expand the heading, "Commercial

Paper Spreads," all the way down? So now, in the draft for the first time, there's a different way of presenting the numbers. Do you see that?

MR. SHAPIRO: Yeah, there's more rigor to this, which is what I was asking for.

MR. TAMBE: Right. And you asked him, "Be rigorous. Make sure you explain every step of the process," correct?

MR. SHAPIRO: And justify.

MR. TAMBE: And justify it and make sure you're accurate.

MR. SHAPIRO: Right.

MR. TAMBE: Right. And make sure you're fair.

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And so, following those instructions, he goes out and starts breaking up the all in 150 number. The first thing he does is he breaks out 66.6 percent as the spread over LIBOR. Do you see that?

MR. SHAPIRO: That's correct.

MR. TAMBE: And so, this is a change from what you'd seen before, right?

MR. SHAPIRO: It is a change.

MR. TAMBE: Right. And it's following your instructions to be rigorous, right?

MR. SHAPIRO: I believe so.

MR. TAMBE: And to show your work, right?
MR. SHAPIRO: Yeah.
MR. TAMBE: But you don’t change this aspect of the draft, right?
MR. SHAPIRO: Which aspect?
MR. TAMBE: This aspect, the commercial paper spread number that Mr. Vergara used?
MR. SHAPIRO: No.
MR. TAMBE: If you go further down, you’ll see some familiar language under, “Charges for Municipal Tobacco Credit.” There’s a discussion about tobacco bonds in general on that first paragraph. That’s unchanged from when Mr. Vergara first wrote it, correct?
MR. SHAPIRO: I believe so. You can look at them side by side. They’re right here.
MR. TAMBE: If you go down to the next paragraph, you now see Mr. Vergara applying that bond spread to generate a credit spread. Do you see that?
MR. SHAPIRO: That’s correct.
MR. TAMBE: And that was something he did, correct?
MR. SHAPIRO: Yes.
MR. TAMBE: Now your understanding was that Mr. Vergara had worked with Lehman Brothers, correct?
MR. SHAPIRO: Yes.

MR. TAMBE: And your understanding was that he had worked close to a couple of traders who actually traded in tobacco RFAs, correct?

MR. SHAPIRO: He was one of three traders on that desk.

MR. TAMBE: And of the three traders, he was number three in pecking order.

MR. SHAPIRO: He was the junior most.

MR. TAMBE: Okay. And after this point in time, the first quarter of 2009, your firm had not bid on any tobacco or been involved in bidding on any tobacco RFA deals, have they?

MR. SHAPIRO: Our firm had not put out to the-- for the bid, a tobacco RFA deal. That's correct.

MR. TAMBE: Your involvement with tobacco RFAs is primarily in the context of the Lehman bankruptcy, correct?

MR. SHAPIRO: The--you know, in terms of our firm, James had involvement and Nat had involvement in tobacco RFAs. It was very significant that I could rely upon.

MR. TAMBE: Okay. Well, just to be clear about Nat, these drafts aren't going back and forth through Nat, at least in the email chains that we've seen, correct?

MR. SHAPIRO: I believe that to be the case. You look at the email chain, they would reflect it accurately.

MR. TAMBE: You--

MR. SHAPIRO: We don't BCC. But, in remember, we're all sitting in a room together, so it's possible I'm out--when I'm out, I'm seeing it by email and Nat's in the room.

MR. TAMBE: Lots of things are possible, sir.

MR. SHAPIRO: Yes.

MR. TAMBE: Do you have a recollection, as you sit here today, of Mr. Singer providing a single comment to any of these drafts?

MR. SHAPIRO: Early in the process, but not to these drafts, no.

MR. TAMBE: All right. So as far as this breaking out of the credit charge is concerned, Mr. Singer's not providing input from his time at Bear Stearns, correct?

MR. SHAPIRO: That's correct.

MR. TAMBE: And you're not providing any input on how credit charges should be broken out because you've never really done it in a tobacco RFA, correct?

MR. SHAPIRO: Well, I've never done a tobacco RFA. I, you know, I participated in the bidding process of many forward purchase agreements, just not tobacco ones.

MR. TAMBE: Well, but the whole focus of this bottom section is the unique risk--I believe someone said--

the unique risk presented by tobacco issuers.

MR. SHAPIRO: But credit risk is a component of all forward purchase agreements.

MR. TAMBE: And I believe--

MR. SHAPIRO: You have to analyze it for, you know, whether it's a--

MR. TAMBE: And I believe--

MR. SHAPIRO: --a highway or whether it's a higher (indiscernible). And each of them are unique.

MR. TAMBE: But this language that appears at the bottom of page two of Exhibit 49, that's Mr. Vergara's language, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. Now you know, Mr. Vergara, when he testified in his deposition said, when he was at Lehman, he would ask the other folks at the desk what to do about credit charges. Did you know that?

MR. SHAPIRO: You mean he's saying he didn't make them up himself? He had--he talked to other people about them. That's logical.

MR. TAMBE: Right. And when it came to profit charges, the same thing, he didn't decide what the profit charges would be, he talked to the traders and have them tell him what the profit charges should be.

MR. SHAPIRO: It's--that's typical. It's a

consultative process.

MR. TAMBE: And whatever his experience was in this matter, when he first looks at this, he says, “Well, I’ve got the 4.29 percent.” You see that? He’s got the same bond spread you ultimately used. But what he does is he says, “We’ve conservatively used a credit spread of three percent.” Do you see that?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. If you go to the next page? And again, he inputs these numbers into Principia, and he generates some values, correct?

MR. SHAPIRO: Yes.

MR. TAMBE: All right. So, as we go from here on out, the profit number doesn’t change, correct? Yes?

MR. SHAPIRO: That’s correct.

MR. TAMBE: Okay. What is changing, in his model, is the credit spread he applies on October 2 and March 25th, right?

MR. SHAPIRO: Right.

MR. TAMBE: And he doesn’t apply the full 429.

MR. SHAPIRO: That’s right.

MR. TAMBE: Okay. And all of that arrives at, in March, 25 valuation number of $34.4 million. Do you see that?

MR. SHAPIRO: Correct.

MR. TAMBE: And that's again, to the 2042 date, because you've sold us Mr. Vergara didn't know about the 2032 date.

MR. SHAPIRO: I believe not.

THE COURT: So you testified before that it would be the same percentage miss, if you will, right?

MR. SHAPIRO: Proportionately, it's going to be--

THE COURT: Proportionately--

MR. SHAPIRO: --approximately that way, your Honor.

THE COURT: So what is that? Can you do the math for me? What was it, about 20 percent?

MR. SHAPIRO: It's--we--the initial calculation was 47, it went down to 38. We'd have to look back at the exhibit.

THE COURT: Right. So 47--

MR. SHAPIRO: To 38, you have to drop a nine million--

THE COURT: And 38 is nine, nine over 47.

MR. SHAPIRO: It's about one sixth, you know? So--

THE COURT: Between one sixth and one fifth.

MR. TAMBE: And again, it's your understanding that to generate the number he has there, he would have input, just like we saw on the other screenshots, that

total number on page three of Exhibit 49 into the screenshot we were looking at, US dollar, three month LIBOR minus those numbers, correct?

MR. SHAPIRO: He would've--on the spread, he would've, yeah, cut it at that number.

MR. TAMBE: Did you ask Mr. Vergara whether he had ever run a valuation model where he took the entire bond spread or a significant portion of the bond spread and simply put it into the cash flow model?

MR. SHAPIRO: Did I ask him literally that? I'm sure not.

MR. TAMBE: And you understood that the model he was using was not a CVA calculator from Bloomberg, he was using a cash flow model from Principia, correct?

MR. SHAPIRO: Yeah.

MR. TAMBE: And he had told you what that model does is generate cash flows, right?

MR. SHAPIRO: He--we went through this already. I think it generates an output, which shows the value of the contract.

MR. TAMBE: So--

MR. SHAPIRO: It generate--ca--it's capable of generating lots of things, but we're generating a value here.

MR. TAMBE: And so, Mr. Vergara said that the

model generates cash flows. You'd rely on him because he ran the model, right?

MR. SHAPIRO: Didn't I just say he didn't say that they--we were generating cash flows? We're generating a value.

MR. TAMBE: Well--

MR. SHAPIRO: I, I'm puzzled by, you know, by keeping saying that.

MR. TAMBE: And Mr. Vergara said, in his draft to you, "We're conservatively using 300 basis points, three percent as the credit charge. We're doing the calculation the way it appears on page three there." He didn't tell you why he was being conservative, did he?

MR. SHAPIRO: He did not provide a justification for that.

MR. TAMBE: And there's no documents that have been produced that show any discussion between you and Mr. Vergara about whether that's an appropriately conservative number or an inappropriately conservative number, right?

MR. SHAPIRO: The three percent number?

MR. TAMBE: Yeah.

MR. SHAPIRO: Yeah, I assume I was, at this point, talking face to face, and you know, we're discussing this. And I'm saying to him, "Justify. We need to be rigorous on this. We can't just make a seat of the pants

number on this."

MR. TAMBE: And was it your concern that he'd made a seat of the pants adjustment?

MR. SHAPIRO: When you put a 150 number, a three percent number, the roundness of it immediately causes me suspicion. When somebody puts an exact round number, you say, "How did you derive that number? Back that up."

MR. TAMBE: And the person that you've turned to, to take charge of the valuation process was running the models, was causing deep suspicion in you, because he was coming up with round numbers, right?

MR. SHAPIRO: I didn't say deep suspicion, I'd say, I'd question this. I do this with all of my staff. That's my job.

MR. TAMBE: In any event, the next, I'm not sure if there's other iterations, but ultimately, we end up at an iteration that has just the March 25th date and just the 429 basis point spread, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. And that's what's attached to Exhibit W, and that's what gives you the $47 million (indiscernible), right?

MR. SHAPIRO: Yes.

MR. TAMBE: Okay. Let's go to Exhibit--before we go to the exhibit, we talked a few minutes ago that you are

not historically the TSA's financial advisor, correct, your firm?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. You had worked and provided swap services to a sister agency, correct?

MR. SHAPIRO: Correct. Swap advisory services, I'd call it.

MR. TAMBE: Swap advisory services--

MR. SHAPIRO: Yeah.

MR. TAMBE: --to a sister agency. And folks from that sister agency who overlap, asked you to get involved in this matter, right?

MR. SHAPIRO: Correct.

MR. TAMBE: And they asked you to get involved in this matter because you had swap expertise, correct?

MR. SHAPIRO: Financial products expertise, yes.

MR. TAMBE: Well, you didn't say to them. "I have particular expertise in valuing tobacco RFAs, did you, sir?"

MR. SHAPIRO: No.

MR. TAMBE: Okay. And in fact, your report, from the very first draft, talks about this product like a swap, correct?

MR. SHAPIRO: Correct.

MR. TAMBE: Okay. So you would disagree with Mr.

Curry and Hasterok when they say in their rebuttal report, “The RFA is not really a swap?”

MR. SHAPIRO: No, I wouldn’t say I disagree with--it’s not really a swap, it’s priced based on swaps, at least that’s the methodology that’s always been used historically.

MR. TAMBE: So it’s enough like a swap that for purposes of your methodology, that’s the methodology you used?

MR. SHAPIRO: That’s the methodology we went to first.

MR. TAMBE: Well, in your case, sir, you didn’t go to another methodology, did you?

MR. SHAPIRO: At mediation, we did, as I’ve testified in deposition.

MR. TAMBE: Well, but for purposes of what’s being submitted to court, what you’re testifying as an expert witness, that’s the only methodology you stuck by, right?

MR. SHAPIRO: That’s the only methodology I stuck by, that’s what’s in the basis of my report. I believe the Court’s also seen the deposition, so I’m just correcting you there.

MR. TAMBE: Let’s go to Exhibit 31.

THE COURT: Mr. Tambe--

MR. TAMBE: Yeah?

THE COURT: --we're approaching the two minute warning here.

MR. TAMBE: Okay.

THE COURT: So, clearly we're not going to be finished with Mr. Shapiro today.

MR. TAMBE: Then let's stop here.

THE COURT: All right? Okay. Could we talk? Mr. Shapiro, sir, would you please ste--you can step down.

MR. SHAPIRO: Thank you.

THE COURT: Let's just talk about the coming attractions for tomorrow.

MR. TAMBE: Yeah.

THE COURT: What time would you like to start?

MR. TAMBE: (indiscernible).

THE COURT: Would you rather start at nine? I can do--

C E R T I F I C A T I O N

I, Sonya Ledanski Hyde, certified that the foregoing transcript is a true and accurate record of the proceedings.

Sonya Ledanski Hyde

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